Arris and Gale Lectures

ON THE

RELATION OF EXPERIMENTAL PHYSIOLOGY TO PRACTICAL MEDICINE.

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LECTURE II.—PART II.

THE GROWTH OF PHYSIOLOGY.

BUT has experimental research been silent concerning the circulation since the time of Harvey and Malpighi? Certainly not. The great microscopist, Leuwenhoek, working almost at the same time as Malpighi, confirmed his observations and demonstrated the capillary circulation in the frog's web, and other transparent tissues. He discovered the red blood-corpuscles, or globules as he called them, which were afterwards shown by Hewson to be discs. Another fundamental step in the comprehension of the vascular mechanism was made by an Englishman, a doctor of divinity—the vicar of Teddington. The high pressure comes next in importance to the contracting power of the ventricle for the understanding of the blood-flow, which, without a knowledge of this continuing force, the constant overflow from the arteries into the veins through the capillaries cannot be properly understood. Without a due appreciation of the force with which the blood tends to escape from the arteries, how can the surgeon well estimate the means he must adopt to check its flow from a severed vessel? In 1732 Dr. Stephen Hales published his Statical Essays, which contained an account of the experiments on living animals which he performed to estimate the force of the heart. By means of the trachea of a goose he connected a long tube with the crural artery of a mare, and he found that the blood rose to the height of some eight feet. On the other hand, he showed that the pressure in the veins was very low, being on an average ten times less than that in the arteries. The manometric method introduced by Hales was greatly improved by Poiseuille who used the mercury gauge. The whole question of hæmodynamics was fundamentally investigated by Volkmann. The graphic method which enables us to preserve such accurate records of the changes occurring in the circulation under different circumstances—the sphygmographic tracings of every well-educated physician—was introduced by Ludwig.

It is remarkable that just about the time when the view of the ancients regarding the active propelling power of the arteries was thought to be satisfactorily refuted, the existence of contractile elements in their walls was first definitely made out. Haller convinced himself of the existence of muscle tissue in the coats of the arteries and of the nerve influences controlling it, although he could not observe it to respond to ordinary stimulation. Cullen, adopting Haller's view, assigned to the arteries the power of controlling the distribution of the blood to the several parts of the body, while the force and frequency of the heart-beat remained the same. The experiments of John Hunter on the contractility of the arteries of the horse next followed. The demonstration of the actual occurrence of the contraction in response to different stimuli in the living frog's web, by Dr. John Thomson, placed the matter beyond doubt. It remained for Claude Bernard to demonstrate by vivisection the paralysing effect of section of the sympathetic nerves in the neck upon the vessels of the head. Immediately afterwards Dr. Brown-Séquard observed that the electrical stimulation of the distal end of the divided sympathetic caused the small vessels to contract, and thus brought back the pallor of the part. From numerous sets of experiments we now know the wonderful nervous and muscle systems that belong to the vaso-motor mechanisms, which are constantly employed to regulate the blood-supply to the various organs and parts. By means of experiments on living animals almost daily additions are being made to our knowledge of this important subject. The practical value of these details is, I think, sufficiently proved by the fact that many of them were discovered during the practical investigation of the processes of inflammation, which lies at the root of all pathological science. I shall, therefore, only remind you of the important facts: (1) That our methods of arresting bleeding have been improved; (2) our means of alleviating cardiac disease have been extended; (3) and our knowledge of the pulse, as well as our method of investigating it, have been completely changed by such additions to our knowledge as those I have just mentioned.

And have we gained any practically useful knowlege of the capillary vessels since the days of Malpighi and Leuwenhoek? We have learned by the vivisections of Waller and Cohnheim that their walls are permeable not only to the fluid but to the solid parts of the blood, and that under certain circumstances the white corpuscles may be seen to creep through the plastic wall of a capillary or small vein without leaving the least trace of their exit. Not only does fluid pabulum pass through the textures, but also protoplasmic units; active formative agents emigrate from the vessels and wander through the interstices of the tissues. From Cohnheim's experiments with emboli in the frog's tongue, we know that when a little area of capillaries is for some time deprived of its blood-supply, the wall of the vessels undergoes some change (arising from malnutrition), loses its power of retaining the blood, which consequently escapes into the textures around. Of the blood itself we also have learned much of recent years that is practically useful. Besides the part played by the fibrin-factors in bringing about coagulation, we have been shown that the lining wall of the vessels bears to the blood a remarkable relationship, by means of which coagulation is constantly held in check. Thus a kind of interaction, a mutually protective or reconstructing interchange, seems to occur between the blood and the tunica intima, particularly in the minute vessels.

From the foregoing examples, it is evident that the general explanation of how the blood—the universal carrier of both food and waste-products—travels through our frame, was from first to last demonstrated by experiments on living animals. I need not pause to inquire what the probable effect of not possessing this knowledge would be even to the most unscientific routine practitioner!

I must now rapidly glance at the function of respiration.

Before Malpighi demonstrated the vesicular texture of the lungs and the passage of the blood through their capillaries, but little was understood of the manner in which the blood passed from the right to the left side of the heart. Though the fact that the blood must pass thus through the spongy lung tissue was, as we have seen, long known, its relation to the air must have remained a complete mystery until the dense meshwork of capillaries, well called the "rete mirabile Malpighi," was discovered. But even when the air cells were familiar to all physiologists, and the mode of exposure of the blood in a wonderful network of vessels had been demonstrated on living animals by the aid of the microscope, the process of respiration was but very imperfectly understood, and the true relation of the respiratory movements to the motion of the heart and the flow of blood in the arteries was quite unknown.

It was the prevalent opinion among the ancients that the air passed through the lung into the pleural cavity. This opinion continued down to the time of Haller (1747) and received the sanction of all the great authorities in the beginning of the seventeenth century, including Harvey, Hales, Boerhaave, &c. This error arose partly from the condition of the parts found in post-mortem examination of the human body, when the lungs are usually in a collapsed state, and partly from experimentation upon birds. It was only by a series of experiments that Haller disproved this theory. Is there anyone who can be so ignorant of the value of the physical methods of examination as not to recognise the practical importance of a correct knowledge of the relation of the pleura to the lung and to the chest-wall? Apart altogether from its physiological importance as an item in the comprehension of the mechanism of respiration, would not ignorance upon this point cut us off from all possibility of physical diagnosis in pulmonary and pleural complaints? Have these experiments of Haller's, then, proved of more than purely scientific value, and have they done more than "satisfy scientific curiosity and quench the selfish thirst for knowledge?"

It was the distinguished English physicist Boyle who first pointed out that the lungs were filled by the atmospheric pressure. The thorax, he said, acted like a bellows; when it

dilated the air was forced into the trachea and filled the lungs. This he compared to the distension of a bladder into which the atmosphere rushed when the air around it was removed by an air pump, an instrument which was, at that time, a great novelty. But this simple view deprived the lungs of all their vital action in causing the motion of the blood, and, though amply demonstrated, was not received as correct for a long time afterwards.

From an inspection of the anatomy of the thoracic viscera and the beautiful and complicated apparatus by means of which the air and the blood were brought into immediate relationship one to the other, it was but natural to conclude that the use of the lungs was to enable the air to produce some change in the blood. Indeed, before the anatomy, either of bloodvessels or lungs, was understood, we had learned from Servetus that the vital spirit of the air was supposed to have a definite effect upon the blood. From the moisture and warmth of the expired air it was concluded by the more cautious physiologists of olden times that the air removed from the blood some of its moisture and heat, and thus refreshed it as well as added to it new vital spirits. The absolute necessity of constant and uninterrupted respiration was recognised by all, but it was attributed to the mechanical effects produced by the respiratory movements upon the motions of the blood. Boyle showed, however, that the air must be fresh in order adequately to supply the requirements for life and to carry off the moisture and what he called the "recrementitious streams." At this time it was pretty generally believed that the blood gave something to and received something from the air. But what that something was chemistry was not yet ready to state. Mayow, by acute reasoning and a most carefully arranged series of experimental researches, in a great measure performed on living animals, arrived at conclusions that were far in advance of his time. He announced that the air of the atmosphere was a compound body, and that it contained as one of its constituents a substance which he called (on account of its relation to nitric acid) nitro-aerial spirit. To this nitro-aerial spirit he attributed the properties of oxygen. It gave the air the power of supporting combustion, and to it were due the vital properties which the air imparted to the blood during its passage through the lungs. It was this nitro-aerial spirit that made the air useful for respiration, and its absence rendered it unfit to support life. But the knowledge at the time when Mayow lived was not ripe for such views. They fell into disuse, and were almost forgotten by his successors. Even Hales, who paid much attention to the subject, seems to have known but to have disregarded the theory of Mayow.

I need not attempt to follow the various stages in the discovery of oxygen, and the application of this all-important piece of knowledge to the function of the lungs, but I would call attention to the experimental steps in advance made by Black and Priestley at a time which may be regarded as the dawn of our modern chemical knowledge. The fact that what was then called "fixed air" (since commonly spoken of as carbonic acid gas, or now carbon dioxide) was present in the expired air, was shown by Black by experiments on living animals about the year 1759, and about twelve years later Priestley showed the analogy of respiration to combustion, and concluded that the air, in passing into and out of the lungs, lost some of what we now know as oxygen. But the great credit of giving an exact explanation of the chemical changes occurring in respiration is due to the eminent French chemist Lavoisier, and the completeness as well as the accuracy of his views may be traced to the constancy and skill with which he experimented on living animals. The more important principles of his writings have since been fully worked out, and, in the main, confirmed by others, so that we now have an accurate knowledge not only of the chief chemical changes that take place between the air and the blood, but also the exact quantities of carbon dioxide given off and oxygen consumed in the process. Need I attempt to point out even to a layman the value of this knowledge? Has it not strengthened our hands in attempting to prolong life and alleviate human suffering? The merest tyro in hygienic study knows how absolutely necessary a knowledge of such facts must be before one attempts to consider the essential point of ventilation. What would have been the fate of the hundreds of persons who have been revived by artificial respiration had we not known the mechanism of breathing? What would we now do without physical examination of the chest? and how would we proceed did we think the pleural cavity full of air?

Having learned the changes occurring in the air during its visit to the lungs, there still remained the important questions to answer:—What changes take place in the blood? what becomes of the oxygen? whence comes the carbon dioxide? The difference between the colour of the blood flowing through the veins and that in the arteries had long been remarked, and since the time of Galen had been attributed to the vivifying action of the heart itself, the centre from which emanated the heat and vital spirits. The first light thrown upon this point came from a most admirable series of experiments made by Lower. By opening the thorax of a living animal he found that the change in colour took place in the pulmonary capillaries, and not in the heart cavities. Though as clearly demonstrated as any scientific fact so surrounded with difficulty could be, this instructive observation of Lower remained unnoticed by his immediate followers as well as by his contemporaries. Not until Priestley showed the effects of the exposure to the air of a blood-clot was the scarlet colour of arterial blood regarded as a change probably brought about by the air acting on the blood in the lungs. Now that we are well acquainted with the red corpuscles and their colouring matter, and its wonderful relationship to oxygen, it seems difficult to understand why Lower's views did not meet with immediate approval. And now that we know that white blood-corpuscles are the active agents which preside over the repair of our injured or worn-out tissues, that the serum conveys pabulum to these, and that the oxyhæmoglobin supplies them with oxygen, we should shrink with alarm if it were proposed to apply twenty leeches over the apex of the lung of a phthisical patient, or to take thirty ounces of blood from the arm in the early stage of typhoid fever.

The attention of the ancients was exclusively devoted to the stomach as the organ in which the necessary changes took place in digestion. First of all these was supposed to be simply "concoction," a process dependent solely upon the moisture and heat of the stomach. From some of the coarser changes which would be observed in the food stuffs as they passed along the small intestine, it was afterwards supposed by others that the chief change was one analogous to putrefaction. From the elaborate muscular stomachs in birds and some other animals another set of physiologists put forward the view that the only essential in digestion was trituration, a view which, though supported by but slender evidence, required the experimental contradiction of Spallanzani for its complete refutation. In opposition to the latter view the theory of fermentation was stated, which term, however, at the time when the earlier chemists flourished, had a very different signification to that which it now bears. It was not until definite experimental research was instituted that the secretion of the gastric juice became known, and its effects on certain kinds of food were tested by Stephens and Spallanzani. Time will not permit me to mention in detail the numerous series of experiments which showed the chemical composition of the gastric juice and its effects on proteid food as well as its inertness on other food stuffs, nor the investigations which led to the comparatively recent discovery of the wide-spread activity of the pancreas (to which the ancients assigned the modest function of a protective pad), nor those on the value of the succus entericus. It is sufficient to say that by means of experiment on living animals we have arrived at a fair knowledge as to where and how the various food stuffs are changed in digestion. And I would ask any practitioner, however opposed he may be to experimental research, can he ignore the mode of action of the gastric, pancreatic, and intestinal juices on the different foods when prescribing any special dietary; and is he aware that most of the important points that form the basis of his practice have been elicited by vivisection, possibly during his own lifetime?

In order to appreciate the influence of experimental research on the progress of the knowledge of the physiology of the nervous system, it is well to bear in mind the views of the ancients upon this subject. The brain was deemed by them to be a large gland, secreting certain subtle animal spirits, which were distributed by the nerves to the different tissues of the body. "The nerves," says Galen, "like streams from a fountain, convey to the muscles their powers from the brain." The flow of this nervous fluid being difficult to detect, it was subsequently supposed that merely vibrations occurred in it, and no real material current. When the knowledge of electricity came to enlighten physicists concerning so many difficult phenomena, nerve

force was supposed to be traceable to its influence—or, in short, to be electricity. It is only owing to the numerous experiments on living animals that we now know that a nerve impulse is the rapid transmission of a chemical change or protoplasmic explosion, as it were, passing along the axis cylinder of the fibre. It was in the earlier part of this century that by the experiments of Sir Charles Bell, Magendie, and Johannes Müller the distinction of motor and sensory nerves was definitely established. This was the first great step since Galen, and was the key to the understanding of the functions of the nerve centres. Without it Whytt and Prochaska were but groping in the dark. It was chiefly by following the question of the functions of the roots of the spinal nerves by repeated experiments on living frogs that Johannes Müller was led to his accurate conclusions as to the functions of the spinal cord. But it is, no doubt, to our fellow countryman, Marshall Hall, that most credit is due for both originality of discovery and energy in advocating the laws of reflex action which really form the basis of our present knowledge of the uses of the nervous centres. Now we have a precise acquaintance with the localities in which lie the nerve cells that preside over many of our most important organic motions, such as respiration, deglutition, &c.; and a kind of localisation of higher functions seems to be promised by certain modern methods of experiment, which have so far only given results which tempt the sanguine physiologist to look forward to great advances in psychical therapeutics.

Any account of the growth of physiology would be most faulty which did not give prominence to the name of Albert von Haller. By his exertions as an experimentalist, a teacher, and an author, Haller gave a most powerful impulse to the study and progress of physiology. His original investigations have given us a series of results unequalled in number, accuracy, and importance by those of any other physiologist. But Haller's claims to the gratitude of posterity rest less, perhaps, upon the discoveries which he himself made than by his bringing together in his "Elements of Physiology" all that was known of this science, which had been previously scattered throughout the cumbrous writings of the numerous earlier observers and experimenters. Further, he created a spirit of experimental research which had never before existed, and which, I hope, will never again disappear from our methods of medical study. He gave the first short and comprehensive view of physiology that ever appeared. In short, Haller may be said to have created our science as it now is, and he has been well called the father of physiology. I have here his "Primæ Lineæ," which is the oldest and one of the best student's handbooks of physiology. Our science, then, which was conceived in the days of Galen, was only born in the eighteenth century, having undergone a remarkable quickening in the time of Harvey.

It is in connexion with the irritability of muscle, independent of the nervous system, that the name of Haller is most familiarly known, for this was the point raised by him which gave rise to the wide-spread pathological theories which I mentioned in my last lecture. Galen and all his successors believed that the activity of muscle came from the brain or the cord. "All the muscles," says Galen, "have a communication with the brain and spinal marrow; for they must receive from the brain or the spinal marrow a nerve which, though small in appearance, is by no means inconsiderable in power..... There is certainly some great power in the nerves, flowing into them from their primary origin, for they have it not in themselves, neither do they originate it in them. This is proved most distinctly by the fact that if you divide any of the nerves, or the spinal marrow itself, the part above the incision and in continuity with the brain will still retain its powers; but the part below will be incapable of producing either sense or motion." The first dissentient from this view seems to have been Glisson; and he also first used the term irritability as applied to a muscle independent of its nerve. Indeed, he also seems to have had an idea of reflex action. According to him muscular fibres may contract in response to three different kinds of stimuli: (1) To those applied to them directly; (2) to a sensory stimulus coming from without through the medium of the nerves; and (3) to a voluntary impulse arriving from the brain. Haller explains the matter much more fully and clearly than Glisson, and applies his views to all the motions of organic life. He says, "Every muscular fibre when irritated contracts itself, and this character distinguishes it from the vegetable fibres, and perpetual irritation alone is the cause of the continuation of motion in the vital organs, after the animal organs had ceased to move..... The irritability of the muscular fibre is independent of the nerves and of all known property." Elsewhere he says: "Irritability is different from elasticity, and from the dead contraction common to all fibres; it seems to constitute a power which is quite peculiar to the muscular fibre, and characteristic of it, so that every muscular fibre may be said to be irritable; and, on the other hand, everything which is irritable may be said to be muscular fibre. It is a power distinct from every other power and to be referred to the sources of motion—of the ultimate cause of which we are ignorant." How apposite is Haller's muscle-force at this moment, when there is a difficulty in explaining some vaso-constrictions which occur without nerve influence and vaso-dilatations which follow nerve influence.

Although Germany be the cradle in which our comparatively young science is now fostered, I think, from the sketch I have given, it may be gathered that England has made a fair contribution to modern physiology.

Are English physiologists now to stop working, or must they proceed with the heavy incubus which has been placed around their necks by the opponents of experimental research?

COMPOUND SUPPURATING HYDATID CYST OF THE LIVER,

TREATED SUCCESSFULLY ON THE ANTISEPTIC PLAN.

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SIMPLE hydatid cyst of the liver is far from uncommon; its diagnosis is generally easy, and its treatment successful. But simple cysts may change at times into those of compound form by fusion or otherwise, and yield a high death-rate from the accidents of size, situation, laceration, or change in the nature of their contents, and occasionally from the very means adopted for their destruction. The case to be described would fall under this second division, and may be thought worthy of notice, not only from its special complexity or the freedom of the operative procedure, but from the unusually large amount of hydatids discharged during the progress of the treatment (to state the number, at two thousand would probably be an under-estimate), and also from the apparent completeness of the cure, without the occurrence of any untoward symptom of more than transient duration.

Thos. M——, aged thirty-seven, unmarried, was admitted into the Royal Free Hospital, under the care of Dr. Cockle, on Nov. 22nd, 1881, with the following history. He comes of a healthy family. Was formerly a commercial traveller, but for the last four years has been in the police force. He has been subject at times to a cough in the winter, unattended by any shortness of breath. Has had no previous illness beyond an attack in 1875, supposed to be lumbago, which lasted six weeks. Since then he has suffered at times from wandering pains in the back, and more or less from weak digestion and some failure of the appetite. Within the last year or two he has got thinner and become paler, and eventually observed that his feet and ankles were swollen at night. In the beginning of November he states that he caught cold, followed by shiverings, subsequently recurring at irregular intervals, with severe cough and difficulty of breathing. However, he still kept on night duty, but was at length compelled to go on the sick list for bronchitis. On Nov. 20th he felt great pain in the pit of the stomach, which was relieved by the application of iodine liniment.

Present condition.—He presents the appearance of a man originally of good muscular frame, but now considerably emaciated, and he states that he is still losing flesh. His complexion is of a markedly earthy tint, but without the slightest jaundice; the conjunctivæ are quite natural, and the urine clear. His skin is harsh and dry, the tongue coated, and digestion impaired. The left lung generally is unduly resonant on percussion as compared with the right; a few scattered râles are audible at the bases, and dry

sonorous rhonchi at the upper portion of the chest, especially towards the left apex. The expectoration is moderate, clear, frothy, and somewhat viscid, but never tinged with blood; cough is occasional, but not great. The heart occupies, apparently, its natural position; its rhythm and sounds are normal. The pulse is full, soft, and slightly quickened. The area of hepatic dulness is very markedly increased, extending from about the upper border of the fourth rib in the right mammary line to upwards of two inches below the umbilicus; in the mid-axillary line from the lower border of the fifth rib to three inches above the right crista ilii. Upon placing one hand posteriorly, and the other over the anterior face of the liver, the antero-posterior depth feels greatly increased, yielding a sense of resistance. The entire right lobe on its anterior face felt tolerably firm and smooth, without any particular bulging or sense of fluctuation at this time, and, from its perfect painlessness and absence of tenderness on pressure, rather suggesting the idea of amyloid enlargement. The enlargement has a remarkably square end to the left of the umbilicus. The position of the organ remains unchanged during respiration, and is probably fixed, at least in places, by adhesion. The splenic dulness seems normal. Very marked œdema of both lower extremities exists. The patient continued in much the same state until Nov. 28th; the bronchitic symptoms were greatly lessened, but he complained of a "tight feeling" at the pit of the stomach.

Dec. 2nd: There was now apparent a marked and visible prominence over the middle of the enlargement, it being tense, elastic, with obscure hydatid fremitus on percussion, and a distinct feeling of fluctuation. Upon firm and sustained pressure over the prominence the fluid in the swelling seemed to be displaced, reappearing slowly with a rebound as the pressure was gradually relaxed.

Leaving for the moment these later physical signs it was necessary, in order to include all the data for accurate diagnosis, to look again into the past history of the case so far back as the supposed attack of lumbago in 1875. For it is probable that this attack may have been connected with the development of a cyst deep in the liver, near its posterior surface; such a view seems consistent with what is known as to the ordinarily slow and painless growth of a hydatid cyst. Although no particular symptoms immediately followed the attack beyond a wandering pain in the back and impaired digestion, more remotely there occurred, without other obvious cause, gradual loss of flesh, change in the complexion, and, finally, œdema of the lower extremities, the latter result only to be explained by the pressure of a cyst upon the inferior cava, for the urine was fairly normal in quantity and free from albumen. Finally, the severe pain at the pit of the stomach, together with the rigors and the comparatively rapid development of the anterior fluctuating swelling, led to the diagnosis of a compound suppurating hydatid cyst of the liver.

Mr. Rose was requested to open the cyst by incision, which was done on Dec. 6th under the antiseptic spray, and the antiseptic treatment was continued unintermittingly throughout. All notes from this date were taken daily by Mr. Pollard. An incision, one inch and a half in length, was made just internal to the cartilage of the ninth rib, when a large amount of pus and hydatids escaped through the opening. The number passed at once, and by subsequent manipulation, was about five hundred. The hydatids varied in size from an ordinary pea, or smaller, to cysts whose walls were two inches in diameter. A large-sized caoutchouc drainage-tube was inserted and the wound dressed. In the evening severe pain of a shooting character was complained of. Pulse 100; temperature 98·6°. A quarter of a grain of morphia was administered.

December 7th: Wound dressed; free discharge of pus and hydatids; discharge more serous; drainage-tube left in situ; dressings tinged with bile; odour of sulphuretted hydrogen. Pulse 100; temperature, 98°.—8th: Wound dressed; discharge less free; hydatids tinged with bile blocking tube, which was removed and reinserted. Pulse 84; morning temperature, 98°; evening, 99·8°.—9th: Appetite good; feeling stronger and has less pain. Wound dressed; discharge of feculent odour, tinged with bile; tube removed, shortened, and reinserted. Salicylic cream applied round the wound. Morning temperature, 98°; evening, 99·4°.—10th: Some cough; wound dressed; free discharge of the same character. Temperature 98°.—11th: No discharge has come through the dressing; bowels acted for first time since operation. Morning temperature, 98·6°; evening, 97·2°.—12th: No discharge has passed through; feels comfortable and free from pain. Morning temperature, 97·4°; evening, 100°; has slept through the rise.—13th: Wound dressed; drain blocked by cysts; four ounces of muco-biliary matter evacuated. Morning temperature, 98°; evening, 99·4°.—14th: Patient looking clearer and brighter; occasional darting pains in region of liver; complains of presence of the tube; wound dressed; free biliary discharge; fewer cysts. Morning temperature, 97·8°; evening, 98°.—15th: Discharge not through; no pain; looking and feeding well. Temperature, 98°.—16th: Wound dressed; discharge thicker and more grumous; still feculent odour; tube shortened; before reinsertion the dressing forceps had to be used, as the liver appeared to have risen somewhat. Morning temperature, 98°; evening, 97·2°.—17th: No discharge through. Temperature normal.—18th: Slight throbbing pain. Morning temperature, 97·4°; evening, 98°.—20th: Wound dressed; drainage-tube removed; slight serous discharge tinged with bile; free from pain; sat up; protective used for the first time.—22nd: Wound dressed; no special odour with discharge, which is serous, but the protection is blackened.—26th: Dressed; same character of discharge.—29th: Wound open to one inch depth; not much discharge; got up.

Jan. 1st, 1882: Dressed; less discharge, without smell; sinus about the same depth.—4th to 6th: Dressed; no smell detectable since Dec. 18th until Jan. 8th, 1882; temperature ranged between 97·4° and 99°; no hydatids were discharged; patient was up daily.—9th: More pain complained of; the discharge on dressing had again a feculent odour; six hydatids came away; dressed with salicylic cream, spray and deep dressings. Morning temperature, 98·2°; evening, 100·2°.—10th: Some pain complained of; expression of countenance evidently anxious; kept in bed.—11th: Still complains of pain; no change in respect of temperature.—12th: Morning temperature, 101·2°; evening, 98·6°; felt in the evening a rush of discharge from the wound; feculent smell detected two beds off; pulse full; headache; furred tongue.—13th: Incision reopened by inserting and opening drainage forceps; thirty or forty hydatids passed with about six ounces of pus of feculent odour. The cysts measured more than two inches and a half in diameter. The finger introduced detected a kind of shelf, behind which it entered a cavity deep in the liver. A large caoutchouc drainage-tube two inches and a half long was introduced, which, after passing upwards, dipped into the cavity. Morning temperature, 98·4°; evening, 100°.—14th: Dressed; a longer tube of four inches was introduced, the present tube being absolutely blocked by hydatids. The forceps were used and several more extracted, with four ounces of pus of feculent odour. Morning temperature, 99·8°; evening, 98·4°.—15th: Pain in wound less; looks brighter; discharge not through. Morning temperature, 98°; evening, 99·4°.—17th: Dressed; a larger tube introduced; six ounces of pus and more cysts discharged; it seems as if a large mother cyst had existed behind the first which was opened.—19th: Dressed; tube again blocked. A silver tube is to be made of such a size that it cannot be blocked, and will be capable of being cleaned without removing it.—21st: Dressed; pus to a large amount, and with decomposing cysts, escaped. Morning temperature, 100·4°; evening, 98·4°.—27th: Since the 21st the wound has not been dressed, as the discharge has not come through; temperature has varied between 98° and 99·4°; dressed to-day; discharge smelling less, and less abundant; drain shortened.—28th and 29th: Patient more comfortable; discharge not through. Morning temperature, 98°; evening, 99°.—30th: A silver drainage-tube with collar made specially, 6·5 centimetres long, collar 1 centimetre broad, calibre 1·4 centimetres; this was inserted after the removal of the previous tube. Its insertion was followed by a gush of a very large quantity of pus and hydatids, the sheets &c. being soaked in addition. During the night dressing and draw-sheets were soaked. Morning temperature, 98·2°; evening, 99·4°.—31st: Dressed; eight large cysts on dressing and in tube; discharge serous; air enters and is expelled during respiration through the tube, which is protected both by the spray and a piece of gauze dipped in carbolic lotion. Temperature, 100·2°.

Feb. 1st: Dressed; a copious serous discharge, which has coagulated round the tube. Morning temperature, 98·4°; evening, 99·4°.—2nd: Dressed; discharge serous, thinner; no cysts. Patient complains in the evening of the pressure of the tube. Morning and evening temperature, 98·2°.—3rd: Brown serous discharge; tube projecting half an inch;

collar protected by wet gauze, and protective with salicylic cream.—4th: Dressed as yesterday.—5th: Dressed. Night temperature, 101°. Bowels not open for several days; purgative.—6th: Discharge not through. Morning temperature, 98·4°; evening, 99·4°.—7th: Dressed; tube kept half an inch out; serous discharge.—9th: Dressed. If the dressing over the tube is touched much pain is felt, and patient feels as if "something was forcing out the tube."—12th: Dressed; much less discharge; tube in only two-thirds of an inch; well padded with wet gauze.—15th: Dressed; tube forced out; little discharge; liver dulness nearly normal; silver tube finally removed.—17th: Dressed; superficial wound dressed with protective and gauze with collodion to keep it impervious. Patient got up.—23rd: Granulations prominent; probe enters a quarter of a inch, touched with nitrate of silver and dressed with dry gauze and collodion.—26th: Wound healed; covered with collodion; since Feb. 1st the temperature, except on two occasions, has not risen above 99° or fallen below 98°. The patient is now able to go out, and seems quite strong again.

April 9th: The patient expresses himself as perfectly well, and leaves the hospital to-morrow for a convalescent home. He has gained appreciably in weight; his face has again filled out, and the complexion is natural. Both appetite and digestion are now excellent, and every function is naturally performed. The liver has retracted nearly within its normal limits, some slight sense of resistance being still detectable. The shape of the abdomen is quite normal. It may, therefore, be fairly inferred that the cure will remain permanent.

Remarks.—The case was probably one in which two hydatid cysts were developed in the liver; the larger and earlier commencing deep in the right lobe, occupying the middle and posterior portions, and eventually communicating with the anterior cyst, which latter, judging from the history of the case and the late appearance of visible bulging, seemed to be of more recent formation. This, at least, may be regarded as the probable order of development, inasmuch as the finger, after passing through an apparent anterior cyst, entered a well-defined opening at its further end, barely admitting it (and which, judging from the thickness and the resistance of the walls, appeared to consist of healthy hepatic tissue), and leading into another cavity, the exact extent of which could not be accurately gauged, but, judging from its contents, seemed to be of very considerable size, sufficient to exert pressure upon the inferior cava, and to induce secondary dropsy of the inferior extremities. It will have been noticed that on several occasions during the progress of the treatment discharge of bile took place through the tube. Some biliary duct or ducts had evidently opened into the cavity. Although several of the cyst membranes were stained with bile, large numbers of hydatids were subsequently discharged at intervals apparently quite unchanged, retaining their tense and semi-translucent appearance, seemingly tending to show (contrary to what is usually supposed) that the bile during this period had neither excited inflammation nor exercised any lethal influence over the parasite. In many of the secondary cysts that were entire numerous minute buds studded the germinal membrane, to which they were more or less firmly attached. Such of the undamaged cysts as were microscopically examined contained either hooklets or echinococci. Some cysts were passed ruptured and decomposing. The feculent odour was tolerably persistent, more or less detectable in the discharge through the tube, and probably resulted from the proximity of the mother cyst to the intestine, as usually happens wherever pus forms near the latter; or from some change in the character of the cyst contents. At no period did there exist the slightest ground for supposing that any communication with the bowel existed. If there were, it must have been a mere capillary fissure. In conclusion, it may be observed that considering the high mortality of cases of suppurating hydatid cyst of the liver, treated heretofore by incision in the ordinary way, the advantages of the antiseptic plan are clearly manifest.

P.S.—May 2nd: The patient has returned from the country in excellent health, and is about to resume duty as a constable.

THE Société contre l'Abus du Tabac offers a prize for the best essay on the question, "Do there exist characteristic symptoms sufficient to warrant the conclusion that amaurosis or defect of sight is caused by the excessive use of tobacco?" The prize consists of books to the value of 200 francs and a bronze medal.

ON CONVULSIONS IN CHILDREN.

BY EUSTACE SMITH, M.D., F.R.C.P.,

PHYSICIAN TO HIS MAJESTY THE KING OF THE BELGIANS, PHYSICIAN TO THE EAST LONDON CHILDREN'S HOSPITAL AND THE VICTORIA-PARK HOSPITAL FOR DISEASES OF THE CHEST.

THE commotion in the nervous system which goes by the name of eclampsia, or a fit of convulsions, is a common phenomenon in infancy, and is sometimes seen in early childhood. It depends upon an exalted sensibility of the reflex centres seated in the pons and the medulla oblongata, but is attended by no change in those parts capable of being detected on examination of the dead body. The disturbance is essentially a symptom, and may be produced by a variety of causes. Irrespective, then, of the immediate danger to life, the phenomenon may be of serious moment or of trifling consequence, according to the cause which has induced it. It is therefore of great importance to ascertain its mode of origin, for only by this means can we speak with any confidence as regards the influence which the attack is likely to have upon the future well-being of the child.

It is during the first two years of life that the tendency to this form of nervous derangement is most active. At this period of childhood the nervous system of the infant, although immature, is undergoing rapid development, and the reflex centres respond briskly to every form of peripheral irritation. The tendency to eclampsia is not, however, confined to this age. Convulsions may even affect the infant in the womb. Early death of the fœtus and premature labour can be sometimes attributed to this cause, and it is to this accident that some varieties of congenital deformity have been referred—those which are characterised by permanent contraction of special muscles. After birth the proneness to convulsions may continue for a longer or shorter time, according to the natural sensitiveness of the nervous system to external impressions. It is therefore much more persistent in some children than in others, and may endure in exceptional cases to the ninth or tenth year.

There are certain conditions which predispose a child to convulsions. Thus, the liability to eclamptic seizures sometimes runs in families so that all children born of certain parents are found to suffer from these attacks. In other cases the tendency is confined to certain individuals of the family, or even to one sex. Thus, all the boys may have convulsions, while the girls escape. Again, in rickets there is a special convulsive tendency, which is very remarkable; and a very large number of the cases of reflex convulsions are found in children with this constitutional condition. When the predisposition exists, very slight causes—causes often so trifling as to escape recognition—may induce the attacks.

Within certain limits, the state of a child's nutrition does not appear to affect his susceptibility to convulsive seizures. A strong child and a weak one may be equally prone to suffer from this nervous disturbance. When, however, an infant is greatly reduced by long-continued interference with nutrition, a remarkable difference is noticed in his sensibility to nervous impressions. Not only is there no exaltation of reflex function, but the normal excitability of the reflex centres is diminished or annulled; so that in a child so enfeebled convulsions are seldom of reflex origin, but usually indicate grave cerebral disease.

In every case of convulsions we should examine the patient very carefully for signs of disease of the brain or its membranes; more especially as the first question usually asked by the parents, after their excitement and alarm have somewhat subsided, relates to the possibility of any affection of the brain. In infants of twelve months of age and under—if the child be fat and robust-looking, the fit is in all probability reflex; if he be under-nourished, weakly, and wasted—i.e., in that condition where all reflex excitability is practically in abeyance, the convulsion is no doubt the consequence of an intra-cranial lesion. In a weakly emaciated infant by far the most common cause of a convulsive seizure is general tuberculosis with secondary tubercular meningitis.

The character of the fit itself will give some indication. Cerebral convulsions are often partial; therefore if the spasms are limited to one side of the body, or to one limb, we should search carefully for signs of cerebral disease. Paralysis of

the face remaining after the end of an attack is indicative of a cerebral lesion. Thus, drawing of the mouth to one side, ptosis, or inequality of pupils are symptoms never seen in true uncomplicated eclampsia. A squint persisting after the convulsion has passed off must be regarded with anxiety; for although not necessarily a grave symptom, it is often indicative of a serious lesion, and if accompanied by signs of heaviness or tendency to stupor, must be looked upon as of unfavourable omen. Again, convulsions, general or partial without loss of consciousness, should lead us to suspect disease of the brain. Another important sign is the condition of the child after the attack. In true eclampsia consciousness is recovered quickly after the seizure; and if any drowsiness remain it is over in a few hours. Signs of persistent stupor or dulness of the senses would point to a cerebral lesion. More temporary loss of power in a limb is no proof of centric origin; but if the paralysis continue longer than a few hours, or a day or two, especially if contraction of muscle occur, we may conclude that some centric lesion, either primary or secondary, is present. Even if the convulsion leave behind it conclusive evidence of a cerebral lesion, it does not follow that the lesion was the cause of the fit. One consequence of eclamptic seizures is congestion of the brain; and if the nervous attack be prolonged, serous effusions and perhaps minute capillary hæmorrhages may occur and lead to very serious consequences.

Convulsions taking place at the end of the exanthemata and other febrile diseases are commonly attributed to cerebral congestion, although it seems probable, from the observations of Dr. Bastian, that embolic plugging of minute cerebral arteries takes a large share in their production. These attacks never come on except at an advanced period of the illness, when the state of the patient is evidently very serious, and they quickly terminate his sufferings. It must be remembered that a fit may be the first sign of secondary tuberculosis. Tubercular meningitis, when it occurs in the course of an acute illness, has its own early symptoms masked by those proper to the primary disease, and only reveals its presence by the more violent phenomena which are characteristic of the third stage of the intracranial lesion. Appearing in this form—as a part of a general formation of the grey granulation all over the body—tubercular meningitis is not uncommon in babies of a few months old. If, then, in a child of any age, suffering from an acute inflammatory disease, such as an attack of catarrhal pneumonia, convulsions come on, we should strongly suspect tuberculosis, and if the fit is followed by squinting and irregularity of pupils, with or without rigidity of joints, we can speak confidently of the existence of tubercular inflammation in the skull cavity.

In cases where no serious cerebral lesion is suspected, it is important to distinguish an eclamptic attack from an epileptic seizure. At the time this is impossible, for the state of the patient requires all our attention, and, if only to quiet the alarm of the relatives, it is urgent that something should be done. When, however, the subsidence of the spasms gives us leisure to make inquiry, we should try to discover some source of irritation to which the convulsion may be attributed. We should look for signs of rickets—the condition which especially predisposes to eclamptic seizures—and inquire for any convulsive tendency in the family. The age is of importance. Up to the time of completion of the first dentition the disturbance is probably not epileptic, and if the gums are tense and hot, or the child has lately swallowed some unsuitable food, we may feel satisfied that the case is one of pure eclampsia. Again, high fever is not a characteristic of epilepsy, therefore if there be pyrexia the fit is probably reflex, or in a nervous disturbance announcing the onset of one of the exanthemata, or of an acute disease. But irrespective of these considerations, under the age of two years epilepsy is rare, while reflex convulsions and the other forms of pure eclampsia are very common.

In older children it is more difficult, often it is quite impossible, to exclude epilepsy. If, however, the fit is a prolonged one, and lasts for an hour or more without intermission, we may conclude that the attack is eclamptic; for the duration of an epileptic seizure rarely exceeds ten minutes, or at the most a quarter of an hour. When the urine can be obtained it should be always examined for albumen, as uræmic convulsions in children are not uncommon. For the same reason the whole body should be carefully inspected for signs of purpling of the skin, as uræmic convulsions towards the end of the desquamative stage of scarlatina are far from rare. The attack of scarlatina is sometimes so mild as to be overlooked by inattentive or unobservant parents; and even if it be known to have occurred the past illness may be looked upon as immaterial to the present disturbance, and may not be referred to. In all cases we must remember that after the age of three, or at the most four, years eclamptic attacks from reflex irritation are rare. Convulsions occurring in a child of this age, if not due to cerebral disease, are generally either uræmic or are premonitory of some acute febrile disease.

As long as any cause can be discovered for the attack the fit is probably eclamptic. It is the convulsion occurring without evident cause which is so suspicious of true epilepsy; and if a child of four or five years of age or upwards be visited while in apparent health by such a seizure we are justified in fearing the beginning of epilepsy. It must not be forgotten, however, that convulsive seizures at first eclamptic may pass into true epilepsy. There is no doubt that this does happen in cases where there is a strong neurotic inheritance. Where there is no such predisposition I believe that epilepsy only follows in cases where the eclamptic attack has induced a secondary cerebral lesion. In such a case, although the first attack, or series of attacks, may have occurred as a result of some appreciable cause, the after convulsions may arise without anything being discovered to serve as an explanation of the morbid phenomenon.

(To be concluded.)

ON THE

METHOD OF OPERATING IN STRANGULATED UMBILICAL HERNIA.

By RUSHTON PARKER, B.S., F.R.C.S.,
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THE communication of Mr. T. F. Chavasse in THE LANCET of May 27th, 1882, is deserving of criticism on several grounds, among which are, the importance of the emergency, the principles concerned in its appreciation, and the question, above all, of practice. The gravity of a condition which, without artificial relief, is almost necessarily fatal, and which formerly seldom proved otherwise, in spite of that relief, cannot possibly be over-estimated; and the traditional importance of the emergency may have not been diminished by the comparative infrequency of its occurrence; may rather, as I think, have been enhanced, seeing that a possible reduction in the mortality may have failed to attract a deserved attention, through sheer poverty of the associated statistics. The amenities of experience (or of what, in default, has to do duty for it) sometimes uttered in the terms "he will never get better," or "such cases always die," are frequently more authoritative than trustworthy; and I confess that I have on that account now and then withheld the complete respect accorded by some to this familiar but despondent wail. In short, the frequent former fatality that attended herniotomy, as performed for umbilical strangulation, has never caused me to view it as the inevitable, or even as the most likely, prospective issue of such cases. But, after all, this statement of my impression must, like that of Mr. Chavasse, or of anyone else, be held subordinate to the great realities, in the light of which the mere impression may be criticised, and eventually justified or rejected.

The former death-rate of umbilical herniotomy, though absolutely high, has been in certain groups of statistics, especially in the hospitals of towns, almost if not quite equalled by that of inguinal and femoral. But an improvement has taken place all round, for reasons that will be differently explained under varying or imperfect impressions. It is certain, however, that of late years an immense immunity from death, in quarters where escape was previously more rare, has been enjoyed after the more common herniotomies; while there are records of conspicuous, if not numerous, successes in even umbilical cases. Much of this success is attributed, and fairly attributable, to the direct protective influence of the antiseptic system and the simplification and multiplication of its cures. But an indirect result of this success has been the removal of unwonted reluctance and delay; in fact men operate earlier, and for some purposes oftener, than they did before, while operations are freely undertaken that were formerly avoided altogether.

The causes of failure, and the means to ensure recovery, in cases of strangulated hernia are not all, however, summed up in the methods employed at the wound or hernial sac, since we have often to reckon with widespread disturbance of intestinal function, to administer opium and proscribe diet, for want of which precautions the most perfect herniotomy, or the most successful taxis without operation, may alike be rendered useless.

I had occasion to cut an umbilical hernia for the relief of strangulation in the summer of 1879. The symptoms were quickly relieved, and the patient made a simple recovery. A complication subsequently arose in the establishment of a fæcal fistula, which did not heal spontaneously, but which I effectually closed at a second herniotomy in the summer of 1880. The case is recorded in the *Medical Times and Gazette* for Feb. 18th, 1882, where details are given. A radical cure of the hernial protrusion did not occur (though I attempted it at the second operation), owing to the wideness of the neck, the thickness of its margin, and the inability of my sutures to obliterate the aperture. But the method that proved unsuited to mine succeeded in a case of much larger umbilical hernia, but with a smaller neck, previously operated on by my colleague, Mr. Banks, for the purpose of radical cure alone, and at which I assisted him, in the same summer.[1] Eventually I was enabled to radically cure, by effectually ligaturing the sac alone as deeply as possible, an irreducible omental umbilical hernia,—a method I venture to recommend to all for simplicity and safety.[2]

I can see nothing in umbilical hernia, strangulated or not, to which the known principles of surgery that apply to other hernia do not equally apply; still less do I see why such a hernia should be, under any circumstances, denied complete reduction, or the supreme advantage of a radical cure. Neither can I imagine that the three patients in these four cases were placed in special jeopardy by manipulation, under suitable precautions, of the umbilical sac or of its contents; or that their simple and speedy recovery can be viewed in the light of a narrow escape.

It is true that in only one instance was strangulation present, and even then of so mild and recent a character as to contrast favourably with similar cases more advanced. But the very fact that the woman was not left till she became moribund, or rather was promptly rescued before signs of actual danger were evinced, is one of the proofs so often and so truly adduced that we must not mistake for consequences of the operation symptoms that never occur when herniotomy is properly and promptly performed. Perhaps one cause of the desperate state into which intestinal irreducibility may drift, in umbilical cases, is the comparative wideness of the neck, facilitating descent, but not strangulation, which is consequently rather prohibited, and, what is worse, is from its more gradual onset apt to be insufficiently noticed by the patient, who fails to connect with the tumour, not differing, perhaps, from its usual daily state, the uneasiness, eructation, and other early symptoms, so much more appreciable to some non-medical intelligences than to others, and so instantly attractive of medical notice. It is truly bad enough for the patient if medical attention be delayed until the unequivocal strangulation has reached an advanced stage of constitutional and even local disturbance. Precisely the same, however, occurs in old inguinal hernia, from many of which an umbilical differs only and simply in the single item of locality. Even at this juncture the successful advantage of operation is conspicuous enough, but it may go very hard with the patient if his surgeon has to think twice about cutting him, through a perfectly unfounded and superstitious dread of killing, by the means alone capable of keeping him alive. I cannot therefore entertain or further discuss the notion of the special vulnerability of the sac of a strangulated umbilical hernia as distinguished from that of the adjacent peritoneum; the onus of proof rather rests upon those who have invented the idea, which, I venture to think, is not based upon any intelligible principle of anatomy, physiology, or clinical experience. It is at best, and under the easiest circumstances, a roundabout way of attaining what should be a straightforward, intelligent, and even simple end; in gangrenous cases it is the surest way to spill fæces into the peritoneal cavity, while in all it is an obstacle to radical cure, without which no herniotomy can now be said to be artistically complete, and to solely attain which many herniotomies are very properly undertaken.

[1] See the Liverpool Medico-Chirurgical Journal for Jan. 1882.
[2] See Medical Times and Gazette, May 27th, 1882.

SYPHILIS AND MARRIAGE.[1]

BY FREDERICK W. LOWNDES, M.R.C.S. ENG.,
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THE following case will serve as a very appropriate introduction to this paper, as well as affording ample reasons for introducing this subject:—In October, 1879, I was requested by our respected honorary member, Mr. F. Worthington, now retired from practice, to see for him a married woman in the last stage of tertiary syphilis. She was in a dying state at the time of my visit, and it would be difficult to convey any idea of the shocking condition in which I found the poor creature, though it may be imagined what it must have been from the subsequent history of her case. The greater portion of her face was gone, her sight was gone; it was with the greatest difficulty that she was fed, and the stench which filled the room was the most sickening I ever encountered. I only saw her once, as she died two days after my visit; and I may here remark as worthy of notice, that her friends were most anxious that the cause of death should not be stated in the certificate, fearing that such would entail a forfeiture of the club money. Circumstances prevented me from taking some medical friend to see the case as I could have wished, or from getting any complete history of it until recently, when, at my request, Mr. Worthington sent me the following details:—

"I cannot," he writes, "find my notes of the case of Mrs. T——, so that I cannot give you more than my recollection of her unfortunate case. Her husband was a sailor and married her when she was seventeen or eighteen. He had had a chancre, and said that a surgeon pronounced him to be thoroughly free from all disease, and that there would not be any risk of infecting his wife if he married. Mrs. T—— suffered from syphilis some months after the marriage, and subsequently she was for some months in one of the London hospitals. She came out not much better. She had been under the treatment of two medical men in Liverpool and of Mr. Bickersteth before I saw her. The people in the house in which she lived neglected to carry out Mr. Bickersteth's directions, and he consequently declined having anything more to do with the case. She was then under another surgeon's care for a time. When I first saw her there was necrosis of both the upper and lower jaw. I removed at different times the greater portion of the upper maxillary bone, extending up to the eyelid on the right side. As you know, she was emaciated to a great degree, and could scarcely swallow for some time before her death. Her husband was in the navy, not a common sailor, but what office he held I do not know. He assured me that a surgeon pronounced him perfectly well and safe in marrying. It was the worst case of tertiary syphilis I ever met with; the smell was so horrible that the room was intolerable without the uninterrupted use of disinfectants."

I took great pains to find the missing links of this history, and especially that portion of it which referred to treatment in a London hospital. Here I was unsuccessful. St. Bartholomew's, University College, Middlesex, and the Female Lock Hospitals were each indicated as the one in which Mrs. T—— was treated, but at none of them could I obtain any information of her. From the landlady of the house in which she died I learned that the deceased had one child which only survived its birth a few months, and was very weakly; also that both the deceased and her sister were always delicate women. She added that Mrs. T—— preserved her bearing up to the last, and to a great extent her reason, which only wandered occasionally.

This case suggests very grave reflections. Here was a man knowing that he suffered from a disease which might prejudice his marriage, taking the precaution of seeking medical advice and obtaining medical sanction for it. It would have been interesting to know what interval elapsed between the healing of the chancre and his marriage, as also whether he was treated with or without mercury. It is true that the frightful result was the consequence of a delicate, probably scrofulous constitution, and of neglect as much as of syphilis. It is also probable that under different and more favourable circumstances the deceased might have re-

[1] Abstract of a paper read at the Liverpool Medical Institute, April 20th, 1882.

covered. Still the fact remains that she suffered from syphilis very shortly after her marriage, and that this was the primary cause of her death. It may be urged that this was a very exceptional case. So it was; but it is not generally recognised that the worst cases of tertiary syphilis occur, not among prostitutes, nor the male patients of lock hospitals, but among respectable married women. In September, 1875, I saw in the London Female Lock Hospital a married woman who was the subject of extensive tertiary disease of the bones of the face. She was also covered with rupia; and in spite of the most liberal use of carbolic acid and ample ventilation the stench was intolerable. I subsequently learned, from the able and courteous resident surgeon, Mr. G. H. Bishop, that after a stay in the hospital of over two years all the necrosed bone was removed and a firm cicatrix covered the parts, the nose, mouth, and right eye being one cavity. He adds: "I have a case of extensive necrosis of the skull, the brain protruding in several places. This, again, is a respectable married woman." Fournier, in his recently published work, says,[2] "Every married woman who contracts syphilis under the conditions which we have considered will always be very insufficiently and incompletely treated, and will consequently be exposed to the most serious future dangers. ..... I insist upon it, that nothing is more frequent in practice than tertiary symptoms of syphilis contracted by women in marriage. Such observations are most abundant; I can reckon them by hundreds in my hospital and private notes."

During the last seven years between seventy and eighty married women have been admitted into our lock hospital here, a large number when we consider that there are only two wards opening into each other, in which married women and prostitutes are mixed together, a fact calculated to deter the former from coming in at all. Of these the greater number suffered from syphilis, some having the tertiary form very severely.

Now, it is no less remarkable than true that those men who may with perfect safety marry, never having had syphilis at all except in their own imaginations, are those who are the most anxious and dubious about doing so, consulting their own and other medical advisers, and being with great difficulty persuaded that there is no danger in their marrying. On the other hand, those who take no medical advice on the subject are too often the very ones who ought to do so, taking the irrevocable step of marrying within a recklessly short period of having suffered from syphilis, or even before its primary manifestation has quite disappeared. Hence it follows, naturally, that many married women suffer from syphilis, and suffer very severely, the approach of the disease being to them insidious and mysterious, occasioning great reluctance to seek medical advice until much valuable time has been lost.

A man comes to consult us. He says he is going to be married in a few days, that he has had impure connexion very recently, and he wishes to have some prophylactic against any disease he may have contracted. On examining him we find no disease whatever. But we all know that the period of syphilitic incubation is one of weeks rather than days, and instances of seven, and even eight, weeks have been proved beyond doubt. This is not a mere point of theoretical interest, but one of great practical importance. Although our patient may be perfectly healthy apparently, he may, nevertheless, have syphilis incubating in him, and a few weeks will suffice to remove all uncertainties. Hence, it is manifest that the only prophylactic we can safely prescribe is a postponement of the marriage for at least three months from the date of impure intercourse. I am unable to give any case in my own practice showing the disastrous results of this recklessness, which is much too common; but a very good illustration is given in Fournier's work, under the note "Syphilis contracted before marriage, and developing itself afterwards."[3] The result of the case is thus summed up:—

1. Coitus a fortnight before marriage with a woman afflicted with valvular syphilides.
2. Marriage in full state of health.
3. A fortnight after marriage the appearance of a syphilitic chancre, followed at the usual time by general symptoms.
4. Infection of the young wife by the husband's chancre, the nature of which was misunderstood when it appeared.

[2] Syphilis and Marriage, by Alfred Fournier, translated by Alfred Lingard, pages 174, 176. [3] Op. cit., pp. 252 4.

Sometimes we are consulted by men with sores on the penis who are about to be married in a few days. Obviously, marriage is out of the question, and must be adjourned *sine die*. I should not think it necessary to say this if I had not seen such cases, and found it very difficult to dissuade at least some men from marrying in such a condition.

But the most frequent and far the most anxious cases are those of men who have undoubtedly suffered from syphilis more or less recently, sometimes being under our own treatment, and who wish to know whether they can safely marry. These cases present grave difficulties, and involve us in very serious responsibilities. We are between two fires. On the one hand, nothing could be so terrible as to incur the responsibility of such a case as that I cited at the beginning of this paper, or, indeed, to sanction any marriage which might result in the syphilitic infection of the wife, in however mild a form. On the other hand, to forbid marriage upon what may afterwards turn out to have been insufficient grounds would be to incur a responsibility only secondary to this. It is generally admitted that no disease is so amenable to treatment as syphilis, and, therefore, the fact of a man having had syphilis does not of itself constitute a bar to marriage. Fournier gives the following as the conditions under which a man who has had syphilis may marry:[4]—

1. Absence of actual specific symptoms.
2. Advanced age of the diathesis.
3. A certain period of absolute immunity since the last specific manifestation.
4. The non-menacing character of the disease.
5. A sufficient specific treatment.

He also gives notes of eighty-seven cases of men who, having suffered from syphilis, married, and subsequently became fathers between them of a total of 156 children absolutely untouched by the disease, and in thirty-five of these cases various symptoms of an unquestionably specific character developed themselves after marriage, without the wives or children of these patients in any way being affected by the disease. While admitting the reassuring aspect of this latter fact, he very properly warns us not to exaggerate its bearing nor to strain it to mean more than it really does.

By the term sufficient specific treatment he explains his meaning to be that mercury and iodide of potassium are to be administered in really active and curative doses, intermittingly for at least three or four years. Even then he advises delay before marrying, but gives his consent if the patient has gone on for eighteen months or two years without symptoms, and if he be otherwise in good condition. Mr. Jonathan Hutchinson, who writes the preface to the English translation, says:[5]—"I feel scarcely prepared to go the full length which M. Fournier suggests in the direction of caution and prohibition ..... Respecting a malady so common as syphilis, whilst it is often our duty to warn, it is also not unfrequently equally our duty to encourage." With this most of us will agree, but I must express my regret at the following sentence of Mr. Hutchinson's: "The surgeon who, on account of past syphilis, forbids marriage to an otherwise eligible man, must remember that he forbids it at the same time to some woman who possibly, if well informed as to her risks, would willingly encounter them." Now, I maintain that no woman should be permitted to encounter such risk, and neither man nor woman is justified in exposing to this risk an unborn child. It seems to me that each case must be judged on its own merits. When the constitution is good, and there has been sufficient specific treatment, marriage may be permitted within a much shorter period than M. Fournier suggests, and with safety. Syphilis alone, and syphilis combined with scrofula, are two very different foes to contend with; and if our patient be of a scrofulous temperament, a delay even longer than M. Fournier's may be desirable. In all doubtful cases we shall do well to seek consultation with one another, specialists consulting freely with all-round physicians and surgeons, and with obstetricians. This should be done to avoid specialism becoming narrow and routine, especially when we remember how that syphilitic diseases penetrate through every nook and cranny of medical, surgical, and obstetrical practice. I have been frequently urged to try non-mercurial treatment, but have always been deterred from doing so by the words of the late Dr. Thos. Edward Beatty, a pupil, be it remembered, of Richard Carmichael, in his address at the annual meeting of the British Medical Association, at Leeds, in 1869: "Mercury given to the man when first diseased would, I

[4] Op. cit., p. 55. [5] Op. cit., vii.

firmly believe, have prevented this terrible calamity—i.e., the syphilitic infection of the wife; and I would now humbly suggest to all who undertake the treatment of venereal disease, that if they have a certainty that their patients will remain celibate all their lives, they may heal up their sores and dispel their eruptions and sore throats in any manner they like; but that they have no right to expose the pure, innocent, high-minded females of society to contamination by marrying men treated without mercury."

A CASE OF TRANSPOSITION OF HEART.

By CHAS. POPE, L.R.C.P. & L.R.C.S. Edin.

G. C——, a bricklayer, aged forty-one, was admitted to the South Shields Workhouse Hospital on May 24th, 1882, suffering from pneumonia with distressing dyspnœa and extreme lividity. The heart's impulse could not be detected anywhere on the left side of the sternum, and the sounds on auscultation were distant and muffled. On examining the right side I found the impulse well marked about two inches below the right nipple and two inches on the right of the sternum. On auscultation at this point I heard a mitral regurgitant murmur, which, however, was only audible over a very limited space, about two inches in diameter. It could not be heard in the axilla nor at the lower angle of either scapula. The pulsations could be heard feebly at the back of the right chest low down, but were inaudible at the back of the left. I could obtain no history of pleurisy, empyema, or pericarditis, neither was there any evidence of tumour of any description, the man declaring that until the present he had never had a day's illness in his life. He had always been a hard worker and a good deal addicted to drink. Under the circumstances I was driven to the conclusion that this was a case of transposition of heart.

The patient died on June 4th, and on the following day, assisted by Mr. Robson, I made a post-mortem examination. On opening the thorax we found the heart natural in size and weight, but nearly entirely on the right of the median line, as indicated during life. The aorta ascended to the central part of the thorax, after which it arched at the usual level over to the left, and descended on the left of the vertebral column, giving off in their normal position its three large branches; these were distributed as usual. The pericardium was nowhere adherent. On opening the left side of the heart the anterior flap of the mitral valve was partially adherent to the endocardium, as were also some of the chordæ tendineæ, thus preventing its proper closure, and giving rise to regurgitation; there was also slight fibrous thickening. The tricuspid valve was in every respect normal, but the right side of the heart was full of clotted venous blood. The lungs in appearance and on section presented the usual signs of grey hepatisation; the right lung was markedly smaller than the left, but consisted of three lobes; the left lung consisted of two lobes as usual; there was no fluid in the cavity of the pleura, nor were there any pleuritic adhesions. On opening the abdomen the liver was found in its natural position and healthy, as were all the other organs. This was evidently a case of congenital abnormality.

South Shields.

DISLOCATION OF THE LOWER END OF THE TIBIA FORWARDS OR OF THE FOOT BACKWARDS.

By GEO. ASHMEAD, L.R.C.P. & L.R.C.S. Edin.

On the evening of June 11th I was sent for in haste to the house of an ironworker, who was said to have broken his leg. I found him lying on the sofa with his left leg resting upon its fellow; he was groaning with pain, and on examination I found the lower end of the tibia occupying a position on the instep of the foot; the extensor muscles and the integuments were tightly distended and of a rose-red colour; the toes pointed downwards and the heel drawn upwards. The fibula was fractured near the articulation. By securing the knee and extending the foot with slight flexion on the tibia, reduction was easily effected without the aid of an anæsthetic, accompanied by a grating sound distinctly audible to those present. Instant relief followed replacement; the foot was bandaged and light lateral splints applied. The easy reduction may be ascribed to the early attendance, the injury having taken place only a quarter of an hour previously. The above is the only example I have met with, and is described by Bryant, Hamilton, and others as extremely rare. Some surgeons have found it very difficult of reduction. The patient had a pair of heavily nailed boots on, and slipped upon some wet glazed bricks, his leg being doubled under him, "tailor fashion," to use his own words.

Brierley Hill.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum tum propriâs collectas habere, et inter se comparare.—Morgagni *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

CASES OF SARCOMA.

(Under the care of Mr. J. W. Hulke.)

Case 1. *Sarcoma beneath the Superficial Muscles of the Calf of the Leg; Excision; Recurrence; Amputation; Secondary Hæmorrhage; Death.*—A cook, aged sixty-nine, was admitted into Regent ward on April 26th, 1880, with a swelling in the right leg, which she thought had begun six years previously. Latterly its growth had been rapid, and it had become very painful. The swelling was caused by an elastic, lobulated mass, reaching from near the heel halfway to the ham. When the leg was extended the mass appeared fixed, but when the leg was flexed, and the superficial muscles of the calf were relaxed, the mass was found to be so movable as to preclude the idea of its being attached to periosteum and bone. Amputation being rejected by the patient, on May 5th it was cut out by a long incision, splitting the gastrocnemius and soleus. It was found to be beneath the fascia covering the tibialis posticus muscle. The posterior tibial artery passed into the tumour, and was necessarily cut away with it; the posterior tibial nerve, which was stretched over its surface, was disengaged from it and saved. The wound was washed out with a chloride of zinc solution, and dressed with boric lint, and the limb was slung. Healing was slow, as might be expected at the patient's age, and in so extensive a wound, and was not completed till the end of July.

In the following October the patient was readmitted with a recurrence of the tumour. There was now above the inner malleolus a mass of the size of a small orange. The skin over its summit was gangrenous, and for some space around it was inflamed. She complained of much pain in the foot, and planting it on the ground caused spasmodic flexure of the leg and foot. Amputation, previously rejected, was now sought by the patient, and on Oct. 13th, the limb was removed by Teale's method, below the knee. The vessels were secured with carbolised catgut ligatures. At the end of one week she had very severe hæmorrhage from the stump, from which she never rallied, and died eight hours later. The primary and recurrent tumours were spindle-celled sarcomata.

Case 2. *Sarcomatous (?) Tumour of Scapula; Secondary Affection of the Lungs.*—A housekeeper, aged forty-four, was admitted into Regent ward in September, 1881, for a tumour of the right shoulder-blade. It was an oval mass, of the size and figure of a cocoa-nut cut lengthwise, firmly attached to the scapula. Its surface was even and defined, and the skin over it was free. It was not tender when handled, but occasioned severe pain, radiating into the neck and down the arm. The grasping power of the right hand was less than that of the left, and the hand felt numb. No enlarged glands could be felt in the armpit. Her breath was short, and she had a cough. She attributed the origin of the tumour to a fall five months before, and she said that it had grown from the size of a walnut to its present bulk during

the last month. Dr. Cayley, who examined the chest, found dulness of the right side from the collar-bone to the level of the fourth rib, and thought this due to secondary tumour growth. She remained in the hospital for six weeks, during which time the tumour on the shoulder and the pulmonary complication both made great progress. She was allowed to go out with an "exeat" for a few hours, and did not return.

CASE 3. *Large Periosteal Sarcoma of the Upper Arm (Pregnancy); Excision; Recovery.*—A remarkably fresh-looking well-grown maid-servant, aged twenty-two, was sent into the hospital by Mr. Pitts of Chelmsford on July 1st, 1880, for a tumour of the arm, of the presence of which she had only very lately become aware, a fellow-servant having noticed the swelling whilst she was washing, and called her attention to it. The tumour reached from near the shoulder to midway between this and the elbow, forming a very conspicuous swelling of two principal and some smaller lobes. The largest of these was beneath the triceps muscle at the back of the humerus. Another large lobe passed round the inner side of the humerus, pressing out of their course the nerve-cords and large vessels to the front of the bone beneath the biceps muscle. It was thought that the mass was slightly movable on the bone. Its consistence was very soft and elastic. It was not tender when handled, nor, usually, painful, but there were occasionally shooting pains in the distribution of the musculo-spiral nerve. The girth of the arm over the tumour was fourteen inches, that of the other arm at the same level ten inches. The principal mass of the tumour was laid bare by a long incision through the middle of the triceps. It was crossed superficially by the trunk of the musculo-spiral nerve, which it had lifted from its groove. This nerve, with the brachial vessels and nerves at the inner side of the arm, were disengaged, and the tumour was dissected out. It sprang from an oblong spot, one inch and three-quarters in extent, of the periosteum at the upper and back part of the humerus. This part of the bone being found rough after separation of the tumour, was cut away. Except at its attachment the tumour was completely invested with a capsule of dense connective tissue. The wound was washed out with a solution of zinc chloride, and four deep rubber drainage-tubes inserted. Strict Listerian measures were adopted during the operation and the subsequent dressings. On the following day the temperature was 100° F., and the pulse 120. On the fourth day the temperature was 99·6° F., and the pulse 102°. There was great pain in the course of the musculo-spiral nerve. As there was some tension the stitches were cut. Suppuration ensued, and the wound closed by granulation. On August 20th she went home convalescent.

In this case the definite lobular figure, softening and elasticity of the tumour, and the patient's age, were suggestive of sarcoma, and its restricted mobility suggested a periosteal origin. The freshly cut surface of the tumour, of a translucent pinkish-grey colour, was very succulent; the juice was clear, not creamy as in cancer. Microscopic examination showed the tumour to be a round-celled sarcoma. Before the operation the large size and vascular turgescence of her breasts raised the suspicion of pregnancy, but this was allayed by her statement that she continued regular. The recurrence of sickness on several mornings when it could not be regarded as an effect of the ether led to a direct inquiry and an avowal of pregnancy in the third month.

LIVERPOOL NORTHERN HOSPITAL.

EXTENSIVE EPITHELIOMA OF PENIS AND SCROTUM; OPERATION; SATISFACTORY RESULT.

(Under the care of Mr. CHAUNCY PUZEY.)

IN our "Mirror of Hospital Practice" of May 20th last was reported a case, from the clinique of Mr. Pearce Gould, of the Westminster Hospital, of operation for extensive epithelioma of the penis, with some remarks upon the various methods of operation which have been practised in such cases. The following record of a very similar case will be of interest, more especially as the operative proceedings were to a certain extent conducted on the same plan, for the same reasons, and with a like satisfactory result.

T. R——, a quartermaster of an ocean steamer, was admitted into the Liverpool Northern Hospital on Jan. 16th of this year. He was suffering from epithelioma of the penis and scrotum, which was said to be of about three years' duration; and he was in a most wretched condition. The penis had become converted into a shapeless epitheliomatous mass, in which a portion of the scrotum was also involved. A slight trace of the remains of the glans penis and of the upper wall of the urethra could be distinguished, but practically no penile urethra remained, and a scanty and constant leakage of urine was going on from somewhere in the scrotal portion of the disease, the parts round being sodden with decomposing urine.

At first sight the possibility of complete removal appeared doubtful, but on examination the mass was found slightly movable on the pubis. There was enlargement of some of the inguinal glands on the right side, but there was reason to think that this enlargement was due to irritation, not to infection. A remarkable feature in the case was the condition of the abdomen. Tense, full and hard, it presented an appearance almost resembling that of pregnancy, and this was due to the excessively distended bladder, the fundus of which reached to fully half way between the navel and the ensiform cartilage. It appeared on inquiry that the man had long suffered from organic stricture of the urethra, and that for the last three or four weeks he had been unable to pass any urine voluntarily. The general condition of the patient was very bad; his features were pinched and dusky, his extremities cold and bluish, the pulse quick and feeble, and the respiration hurried and imperfect; the last-named conditions probably being due to the distension of the abdomen interfering with the action of the diaphragm. The propriety of immediate aspiration of the bladder was considered, but it appeared so likely that the bladder must be paralysed and that after-leakage of urine into the pelvic cellular tissue might occur, that we decided to leave the bladder distended one day longer—in addition to the three or four weeks already passed—and to operate next day for the removal of the disease. Every effort meanwhile was made to warm and stimulate the patient, and to bring him up to the mark for operation.

Next day (Jan. 17th), the patient having been etherised, the operation was undertaken. It was conducted slowly, all bleeding vessels, distended veins as well as small arteries, being tied as divided, so as to diminish as much as possible the risk of collapse, the man's general condition being still very unsatisfactory. Two curved incisions were made, extending from a little above the pubis to the perineum, including the whole of the disease and all doubtful-looking portions of skin; the dissection was then carried down, with knife or finger, to the pubic bone, the testicles being held away on either side; the suspensory ligaments of the penis were divided, and then it was evident that a healthy portion of the organ had been reached. The corpus spongiosum was cut through well behind the disease and dissected back a little way, and urine at once commenced to flow freely from the urethra; the corpora cavernosa were transfixed as far back as possible with a stout curved needle, behind which a whipcord ligature was tied temporarily. The penis was then cut through bloodlessly; the dorsal arteries and those of the corpora cavernosa were tied, and the temporary ligature was removed. The wound was then extended down the middle line of the perineum, the corpus spongiosum dissected back for some distance, the urethra, which was found much strictured, was slit up freely, and the cut portions fixed by several stitches to the skin of the perineum. A No. 6 gum catheter was tied in the bladder, and the remainder of the perineal and scrotal wound brought together with stitches, a drainage-tube having been previously laid in and left protruding at each end of the wound. Just enough scrotal integument remained to cover in the testicles, the left lying behind the right. The man having been removed to his bed a long rubber tube was fixed to the catheter so that the bladder might empty itself gradually into a vessel placed under the bed, and no attempt was made to hasten the flow of urine, but rather the reverse, so as to avoid any tendency to syncope from the sudden removal of tension from the abdomen.

Next day the man's condition was better in every way, the respiration freer, the pulse better, the face improved both in colour and expression. The appearance of the wound was altogether satisfactory, and over seven pints of high-coloured urine had drained away since he had been removed to the ward, in addition to a considerable quantity which had escaped during the operation.

There is little more to say concerning the progress of the case, which was uninterruptedly satisfactory. Four days

after the operation, the catheter having slipped out of the bladder, urine began to collect again, so the catheter was replaced and kept in for about a fortnight. There was hardly any suppuration from the wound, the greater part of which healed by primary union, the perineal portion, which filled up by granulation, being fully cicatrised by Feb. 22nd, the day on which the man left the hospital.

Quite recently (May 22nd) this patient presented himself for inspection. He appeared absolutely well in every respect, and said he never felt better in his life; he certainly looked years younger. He said he had no trouble about micturition, could hold his urine for twelve hours if he wished, but generally passed it about every five or six hours. He could do so standing up, but found it more convenient to do so in a squatting position. The pubic and and scrotal cicatrix was hardly perceptible, and there was no trace of the original site of the penis. The scrotum was small, soft, and smooth, the testicles, which are small, lying one in front of the other. The enlargement of the inguinal glands had altogether disappeared. So far the case appears a complete success.

Note by Mr. PUZEY.—Some years ago at another hospital I saw the unfortunate result of amputating the penis close to the pubis, and trusting to the stitching of the urethral mucous membrane to the scrotal integument. Extravasation of urine and diffuse cellulitis soon led to a fatal termination. The various methods of making a perineal urethra, with the object of avoiding this accident, were so fully discussed by Mr. Pearce Gould in the report already alluded to, that there is little left to add to the subject. It appeared to me that Professor Humphry's plan of leaving the end of the corpus spongiosum protruding from the perineum was likely to be followed by a constriction as the perineal wound cicatrised. Consequently I had decided to slit up the urethra freely, and stitch it to the edges of the wound; and when in the course of the operation the presence of well-developed organic stricture was manifested, it appeared still more desirable to adopt this plan, the result of which has proved most satisfactory. It was remarkable how soon the bladder regained its power of contraction. We had feared that more or less paralysis of that viscus might have followed its long-continued distension; but its muscular structure was evidently hypertrophied (probably owing to the necessity of overcoming the old stricture of the urethra). When partly filled, the bladder could be felt through the abdominal walls firm and hard, like a solid tumour. This muscular hypertrophy was, no doubt, the reason why the bladder so soon recovered its contractile power. How long the stricture had existed we could not ascertain; sailors seldom trouble themselves about such matters until retention occurs. The subject of this report would appear to have been unusually callous, for with all his extensive disease he had been going to sea until three weeks before his admission, by which time the passage of urine *per vias naturales* had been almost completely obstructed, not by the stricture, but by the epitheliomatous disease.

KASHMIR MISSION HOSPITAL.

A CASE OF COMPOUND FRACTURE OF BOTH ARMS.

(Under the care of Mr. E. DOWNES.)

A LAD, about fourteen years of age, had walked to the hospital with his mother for more than twenty miles after meeting with an accident ten days before. The boy was in great pain. When he was placed under chloroform it was found that the radius and ulna of both arms had been broken one and a half or two inches above the wrists; the upper fragments, the periosteum of which was bared for about an inch, were protruding from the wounds. The wounds on both arms were in a dirty and stinking state; the right arm the worse. There were two wounds, one for each bone, and the right hand was swollen, and pus could be pressed up into the wound from the palm. On the left side the wound was a large jagged one, from which both bones protruded; the vessels on both sides appeared not to be injured. After the wounds had been cleaned the ends of the bones were sawn off, the limbs were put up with bracketed splints, dressing the wounds with lint and carbolic oil.

For days the poor lad lived in the greatest agony. His screams in spite of opiates kept the patients awake at night in the wards. He was moved into a house in the village; the neighbours, when they found out what a noise the lad made, objected and asked that he might be removed elsewhere. Here he sat and lay, yelling night and day, and in a half delirious state he several times tore his splints with his teeth. Still attempts were made to save him as much pain as possible by giving him opiates.

At last, after about a fortnight, improvement came; the discharge became more healthy, the hands looked more natural, the pain diminished, and his appetite improved. He was then taken back to the hospital where the flies were not quite so abundant as in the village and he was quiet. After about six weeks it was found that there was union in both arms. From time to time several sinuses were slit up in which matter had burrowed, and were carefully dressed. After he had been in the hospital between two and three months he was discharged.

At the time he was discharged there was certainly some deformity; the fingers of the right hand were not of much use, the left hand even was somewhat stiff; the hand could, however, be flexed, and the fingers also; he could even hold a stick with his left hand, though his grasp was not firm. Still he possessed his two hands, such as they were, and his life was saved. He was seen in the following spring begging in the bazaar, and he appeared to have succeeded in his new profession, for he looked fat and well.

Remarks by Mr. E. DOWNES.—This case shows well how limbs may at times be saved, even after the worst accidents, if the main vessels are not ruptured, especially in the case of young and healthy subjects. At the same time, if one limb instead of both had been injured, or if the case had been one where to save life was the chief consideration, I do not think I could have ventured to attempt to save limbs when the prospect of success appeared so small and the risk so great. In the summer many of the Kashmiris almost live upon mulberries, which they pick and eat on the trees like monkeys. In June, 1878, the famine had continued for about three months, and the people, being weak, fell from the trees by hundreds. That year I had about fifty cases of simple and compound fractures of different bones, which had been caused in this way, brought to the hospital for treatment; some were very bad cases, and this was the worst of all.

Reviews and Notices of Books.

Clinical Lectures on Diseases of the Urinary Organs. Delivered at University College Hospital by Sir HENRY THOMPSON, Surgeon-Extraordinary to H.M. the King of the Belgians. Sixth Edition. London: J. and A. Churchill. (Student's edition.)—A new edition of these excellent lectures is always welcome; and while there is no part that is not valuable and full of practical instruction, imparted in a very pleasant style, those to whom the general teaching of Sir Henry Thompson is already familiar will naturally turn to the chapter on the results of Lithotrity at a Single Sitting with the most interest. In the preface Sir Henry states that he regards this "modern operation" as "superseding the old operation, and to a great extent the operation of lithotomy;" and that this is no mere general statement of opinion only, is fully shown by the results of the operation in Sir Henry's own hands during the last three and a half years, during which he has employed this method almost entirely; for the last two years he has employed it without any exception. During that period he has operated on 112 consecutive cases of elderly men—that is, on 112 separate individuals. The mean age of these patients has been over sixty-two and a half years, and no case of mere phosphatic concretion is included in the list. The calculi have been thus composed: of uric acid 64, of oxalates 4, of phosphates 39, mixed 14. The number of deaths has been 3 only. Sir Henry's average mortality with the old operation was seven and a half per cent.; and once he had so few as 6 deaths in 112 consecutive cases. We thus see that in the hands of the accomplished operator and chief exponent of the old operation, the adoption of Dr. Bigelow's suggestion has reduced the mortality by more than half.

Sir Henry Thompson has made a new departure in the form in which this edition is published. Following a course which has been recently pursued in works of general literature, he has issued it at less than a fourth of its former price. It now appears printed in double columns, and in a stiff paper cover. The paper is sufficiently good, and the type excellent; and we hope this experiment may be a success, and that it may find many imitators among the more successful of our medical text-book writers.

Handbook of Therapeutics. By SIDNEY RINGER, M.D. London: H. K. Lewis. 1882.—Criticism of a work that has already passed through eight large editions is superfluous. Ringer's Therapeutics is a deservedly popular work with the profession, and therefore needs no commendation from us to draw attention to its merits. But even if we had been disposed to criticise, the opportunity is hardly afforded, since there is no very material addition to the present edition, and its increase in bulk is due rather to an alteration in the arrangement of the type than to the importation of fresh material. This is one of the disadvantages rapidly successive editions are attended with—they leave little time for the author to collect and arrange new facts. The two years that have intervened between the two editions, however, have been by no means barren in therapeutical research and progress, and consequently we are somewhat surprised at the slight advance noted in this edition. Perhaps, like a prosperous company declaring an unexpected dividend, the present edition must be regarded as an *ad interim* one, and that in the ensuing issue we shall have the bonus and results of the past two years' work more fully given than in the present volume. Dr. Maxwell of Woolwich has, as usual, prepared the Index to Diseases, and this forms one of the most useful and valuable features of the work.

On Concussion of the Spine, Nervous Shock, and other Obscure Injuries of the Nervous System in their Clinical and Medico-Legal Aspects. By JOHN ERIC ERICHSEN, F.R.S., Surgeon Extraordinary to the Queen, &c., &c. A new and revised Edition. London: Longmans, Green, and Co. 1882.—This book is so well and widely known that it is only necessary to notice the issue of a new edition. The few alterations made in the text are improvements and valuable additions; yet on the whole there is but little difference between this and the preceding edition. As, however, Mr. Erichsen's experience in these injuries is constantly increasing, each time that he issues a new edition his opinions acquire more value and weight. No attempt is made to conceal the exceeding difficulty of the subject; but all surgeons called upon to give an opinion in cases of the kind here described will find Mr. Erichsen's directions of great assistance.

Manual for the Physiological Laboratory. By VINCENT HARRIS, M.D., and D'ARCY POWER, M.A. Second Edition, with forty illustrations. London: Baillière, Tindall, and Cox. 1882.—The number of special works on Practical Histology and Physiology is a proof of the great amount of care and thoroughness with which this subject is now taught in medical schools. This, which is one of the smaller manuals, is already well known, and we need only point out that this second edition has been carefully revised by the authors. It contains many valuable additions; in particular an account of some of the more simple physiological instruments, and of the experiments demonstrating the properties of nerve and muscle. Short accounts of the ophthalmoscope, laryngoscope, and the stethoscope have also been added to the book. In future editions we would suggest that only those methods of preparing tissues for microscopical examination which the authors have themselves found to be really trustworthy should be described. In practical manuals of this class this appears to be the only safe rule.

Household Chemistry for the Non-chemical. By ALFRED SHILTON, F.C.S. London: White and Co. 1882.—A practical treatise of this kind supplies a want that has been long experienced. We have often felt that the best first step in chemistry for educational purposes is to make the student acquainted with the nature and composition of familiar bodies in daily use, rather than to commence with abstract principles and experiments with rather intangible materials. Mr. Shilton teaches, and is not merely a popular writer. His first chapter consists of definitions, and certain chemical preliminaries for the student to refer to, and he then plunges at once into his subject. He commences with common washing soda, describes its manufacture and chemical relations with common salt, Glauber's salts, and the manufacture of soap and candles. Air, ozone, combustion, &c., are next described, and then follows an excellent chapter on water, with respect to its purity, hardness, &c. The chemistry of the starches, gums, and sugars is fully described, and there are some interesting remarks regarding the chemistry of fermentation in relation to bread-making, brewing, and wine production. The work concludes with a chapter on food and physiological chemistry. We can heartily recommend the work to teachers as sound, practical, and on the whole accurate.

New Inventions.

DR. W. P. MORGAN'S SURGICAL NEEDLE FOR WIRE SUTURES.

THIS is a slight modification of the needle in common use in this country for wire sutures. Instead of a solid "eye," this end of the needle is tubular, the tube opening one-eighth of an inch from the end in a slit one-eighth of an inch long. The wire is passed along the tube and out at the slit. Its

end is then doubled on itself, and the loop so made drawn into the slit. If this be done neatly, the tube does not make any projection on the needle, and the suture can be passed with a minimum of friction and force. At the same time, however, we must add that the needle is not threaded so quickly and easily as the gutter-eyed needle.

STEVENS' PERMANENT THERMOMETER.

THE chief point in the construction of this instrument consists in the formation of two constrictions, about a quarter of an inch apart, above the bulb. The bore of the instrument in the uppermost constriction is bent at an angle, which allows of the whole column of mercury above this point remaining stationary and serving as the index. A separate detached index is thus dispensed with. The graduation is very distinct, owing to the adoption of a blackened surface along the markings; whilst the column of mercury itself is rather thicker than usual. The instrument is a reliable one. It is made by Messrs. Stevens and Son, of Gower-street.

ABDOMINAL BELT.

MESSRS. SALT & SON have brought out an abdominal belt with some new features, for which several advantages are claimed. The buckles for fastening the belt are placed well forwards, and the fastening can easily be done by the patient. The straps slide over revolving pulleys, and readily yield to every movement of the body. Adequate provision is made for gradual enlargement of the belt when it has to be worn during pregnancy.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

THURSDAY, JUNE 29TH.

DR. ACLAND, PRESIDENT, IN THE CHAIR.

VISITATION OF EXAMINATIONS.

THE Council went into committee for the purpose of further considering the report on the examinations, 1881–82, of the medical and surgical corporations of the United Kingdom, and the remarks of the said corporations on the report.

Mr. TEALE moved the adoption of the first of the "conclusions" of the visitors, "That it is desirable that every 'primary' or 'first part' examination should include dissections by every candidate." He said he had a strong feeling that of late educational matters in medicine had been drifting into difficulties. Different departments of knowledge had been added or enlarged, and the subjects which the students were expected to bring up for examination had been greatly increased. Those additions had brought them face to face with a necessity for thoroughly reconsidering and revising the whole question as to what should be required of the students, so that the outcome of medical examination and education might be the best attainable—much better than the result at present obtained. Certainly the result was not what it ought to be considering the amount of labour bestowed by students, teachers, and examiners; it was disappointing in consequence of the want of a better distribution of time. The whole subject required careful consideration in reference to the method by which they not only tested but regulated the examinations. One leading object of the visitors had been to make their suggestions bear upon the kind of study brought out in the schools, so that there might be a thoroughly practical development of faculties useful in the profession, doing away as far as possible with that which was evidently growing in all directions—a system of cramming and getting up subjects simply because they were required in the examinations. It was very undesirable that clinical teachers should have to conduct their teaching in reference to the examination; their object should be to teach in the best way they could with a view of making their students practitioners of the highest order. He did not desire that the "conclusions" of the visitors should end in becoming immediately recommendations from the Council. He had no desire to put any strong pressure on the various bodies, but the discussion of the subject by the Council would be of great value; and he had no doubt that it would be extensively read not only by the examiners, but by the teachers. He was aware that the conclusion the adoption of which he had moved did not commend itself to all the bodies. The system proposed was carried out by several important bodies, and he thought it was reasonable to conclude that the practice was a "desirable" one. The principal objection to it had come from the College of Surgeons of England. That body did not indeed deny the desirability of what was proposed; but it had not carried it out on account of the practical difficulties in the way. It was not for the visitors, or perhaps for the Council, to go into the question as to whether a thing of that kind was practicable or not. They had described in their report what was done on a considerable scale by the College of Surgeons of Ireland, and the method there adopted having now been described and put forward authoritatively for the first time, other bodies might perhaps find a way of overcoming the difficulties that had presented themselves. The College of Surgeons of Edinburgh also objected to the proposal, and stated that "few anatomists would consider that such dissections as could be made in half an hour by nervous and anxious candidates would be a fair test of their manual dexterity or anatomical knowledge, whilst it would be an enormous waste of time, which could be better spent in testing their real knowledge." They further stated that the method had been tried by their examiners some years ago, and fell through, not because the system was a bad one of testing knowledge, but because of the mechanical difficulties in the way of carrying it out. The visitors believed that dissections were the very best way of testing "real knowledge." Examinations should be regarded not only as a test, but as a guide to study, and no one could doubt that if a student had to dissect in his examination, he would work more at dissections than he otherwise would, and would be able to produce infinitely better work than he could accomplish by means of plates and spirit dissections.

Sir WM. GULL said he was aware that there were certain mechanical difficulties in the way. It might interest the Council to know that last year at the London University the highest honours in anatomy were obtained by a woman. He had asked her how she had obtained her anatomical knowledge, and what she had dissected, and she told him that she had dissected the whole body carefully twice. The subject of the examination was the hand in the arm, and she was, of course, well prepared for it. He had no doubt the question had been carefully considered by the University authorities, and Dr. Sharpey, who had guided the examinations, would be admitted to be a high authority.

Dr. LYONS, in supporting Mr. Teale's motion, said that at the Anatomical School of the University of Dublin each student was obliged to dissect, and the examinations had given great satisfaction to those who had taken part in them. With regard to the suggestion that time was wasted by dissections, and that there were better modes of testing real knowledge, he was certainly surprised that such an observation should come from the north of the Tweed. The whole subject of anatomical examination was one deserving the closest consideration. There was no subject on which artificial knowledge had been more assiduously foisted on the profession. He knew of no efficient way of testing the real knowledge of the candidates except that of requiring the students to make anatomical dissections of given parts of the body. No doubt when the views of the Council went abroad they would have considerable effect; and, for himself, he should not be afraid of pushing the matter with as much authority as the Council possessed, and stating not only that the practice recommended was desirable, but necessary.

Dr. PYLE said he believed the University of Durham was the first to institute an anatomical examination. Twenty-five years' dissections in the dissecting room formed part of the examination, and they had done so ever since. He agreed with everything Mr. Teale had said as to the importance of the subject.

Mr. MACNAMARA thought that the recommendation proposed was in too milk-and-water a form, and he should like to see it made much more stringent. The Council had already decided that "In examinations in anatomy candidates should understand that they may be called upon to perform actual dissections, and candidates in surgery should understand that they may be called upon to perform one or more operations on the dead body." With regard to the scarcity of subjects, Professor Rolleston had said that such a scarcity would be an advantage, because it would enforce a more thorough use of the subject; the student would have to go deeper in his dissections and not be satisfied with superficial work. He entirely endorsed the statement. What was required for the students was what Dr. Hargrave used to call scalpellary anatomy. Any man of experience in conducting an anatomical examination would at once recognise by the way the student handled the scalpel and forceps whether he had been in the habit of using them or not. He begged to move as an amendment the omission of the words "it is desirable that," so that the motion would read "That every 'primary' or 'first part' examination should include dissections by every candidate." He thought that a very decided opinion on the subject should go forth from the Council.

Mr. SIMON said he felt as strongly as anyone the desirability of dissections forming part of all primary examinations; but he thought the recommendation ought not to go forth in the stringent way proposed by Mr. Macnamara, because there were considerable difficulties in the way of carrying it out, and in some places it might for a time be impracticable. In passing the recommendation as proposed by Mr. Teale, the Council would be giving the bodies a hint that it was their duty to get over the difficulties which they at present encountered.

Mr. MARSHALL said that the College of Surgeons of England was not unanimous in thinking that there was a very great advantage in dissecting, though he believed that a large proportion of the Council thought that dissections were desirable. He could support Mr. Teale's resolution,

but if a stronger resolution, which could not be carried out, were adopted by the Council, he thought the result would be mischievous. If Mr. Macnamara's proposal were adopted the result might be to starve the dissecting rooms and interfere with the general education of the student, diminishing his facilities for dissections and operation on the dead body.

Mr. TURNER said it would be entirely impracticable to carry out the method proposed. He maintained that it was quite possible to conduct a satisfactory anatomical examination without submitting the candidate to the test of actual dissection, and he based his statement on personal experience. He objected to all anatomical examinations where there was no dissected body placed before the student; but he thought it was a matter of indifference whether the dissection was made by the student himself or by somebody else. He admitted that all examinations on dried specimens or specimens preserved in spirit were fallacious in the extreme. He could form as accurate an opinion of what a man had done by seeing how he handled the parts submitted to him as by seeing him actually engaged in the work of dissection. Many of the students in the University of Edinburgh were taught and examined by the professor of anatomy and his associate examiner. Many of the candidates were under personal observation from day to day for years, so that their work was well known, and certificates given at the end of the session. That was a much better test than any half hour's practice on the day of examination. He agreed with the recommendation of the Council that candidates should understand that they might be called upon to make actual dissections, because it was a stimulus to lazy students, and might induce them to work at dissections; but to carry out the system suggested would, he maintained, be impracticable, owing to the scarcity of subjects.

Dr. HUMPHRY said that while he admitted that dissections formed a good feature in anatomical examinations, they were not essential, and in many cases it was impossible to introduce them. He opposed Mr. Macnamara's amendment, and supported the more reasonable resolution of Mr. Teale.

Dr. HAUGHTON said that in the University of Dublin it had been the practice for twenty years for the teachers of anatomy to dissect the bodies carefully up to a certain point the day before the examination, and then call upon the students to complete the dissections. He had consulted some of the distinguished anatomical students upon the subject of dissection at examinations, and their view of it was that it was "only skinning the corpse."

Dr. WATSON agreed that dissections at examinations were desirable, but it should be remembered that students were required to obtain certificates not merely as having been in the dissecting room, but of what they had dissected, and how; and such certificates might be reasonably accepted as an assurance that their instruction had not been perfunctory. He would suggest that the proposed recommendation be qualified by the words "where circumstances permit."

Dr. PETTIGREW supported Dr. Watson's suggestion.

Sir WM. GULL said that certificates were fallacious and worthless. If they could be trusted examinations would be needless. With regard to examinations by the teachers themselves, the Council had already laid down the principle that a teacher should not examine his own students.

Mr. TURNER said that the principle laid down by the Council was that a candidate should not be "wholly" examined by his teacher.

Dr. QUAIN said that great advantage would arise from teaching more medical anatomy and dealing less with dissections.

Mr. Macnamara's amendment was then put and lost.

Dr. WATSON moved, as another amendment, the insertion of the words "where circumstances permit."

This was also put and lost, the numbers being for, eight; against eleven.

The original motion was then put and carried.

REGISTRATION OF MIDWIVES.

The deputation on the subject of the draft Bill for the Registration of Midwives attended according to appointment. It consisted of the following gentlemen:—Dr. W. Playfair, Mr. Sibley, Mr. Ernest Hart, Dr. J. H. Aveling, and Dr. Holman.

Mr. ERNEST HART made a statement on behalf of the deputation, and referred to the various efforts made by the Obstetrical Society to promote legislation in reference to it. He also recalled the action taken in the matter by the Local Government Board, by the Duke of Richmond, and the Medical Council. There were, he said, 10,000 or 11,000 women practising as midwives in England and Wales, assuming that title at their own will and pleasure, and fulfilling their duties without previous education, and without being called upon to furnish any evidence as to their moral character or technical skill. It appeared by the statistics of Dr. Hall Davis that the actual mortality of women attended by skilled midwives—those of the Royal Maternity Charity—was less than the general mortality throughout the country, and that, no doubt, was owing to the fact that so many of the general population were attended by midwives the majority of whom were entirely unskilled, their want of skill more than counterbalancing the advantage derived from the skill of medical practitioners in respect of that part of the population attended by them. The object of the framers of the Bill had been to make it as simple as possible, and it was not desired to throw any expense on the Medical Council. The duty of the Council would be to appoint a board, to approve the regulations formed by that board, and to transmit them to the Privy Council. Local examining boards would be created, but they would not have to meet very often, and their fees would not be large. It was not desired to create any new or superior class of educated women, but to provide for the training and registration of midwives for the poorest classes in cases of natural labour.

Dr. W. PLAYFAIR said that the action taken by the Obstetrical Society was simply tentative and with the view of smoothing away any difficulties that might arise in carrying out the object they had in view.

Dr. J. H. AVELING said that 60 per cent. of the poor women in the manufacturing towns and villages were attended by midwives, and many of them had lost their lives or received injuries from the want of skill of those who attended them. The members of the Matrons' Aid Society, composed of midwives who had passed the Obstetrical Society's examination, were now petitioning Parliament that something should be done to improve their status, and it was urgently necessary that something should be done in the direction indicated.

Dr. HOLMAN, as a medical practitioner, corroborated the assertions made by Dr. Aveling, and added that three-fourths of the midwives in the country were not only ignorant, but generally dissolute women.

Mr. SIBLEY considered that the General Medical Council was the natural guardian of the new movement. The duty of the Council would be to nominate the board and control its action. But very little expense would be involved in the exercise of its powers.

Mr. MACNAMARA inquired if the deputation could state why Ireland was omitted from the Bill?

Mr. HART said it was believed that Ireland was in a better position in respect to midwives than England, and that it had been thought wisest to apply the Bill exclusively to England and Wales.

Mr. TURNER asked for some explanations in regard to payment and fees required by the working of such a measure.

Mr. HART said that the framers of the Bill desired to leave as open as possible the questions relating to modes of payment, which might be better adjusted hereafter; but that it was believed that ample funds would be forthcoming to meet all expenses.

Dr. HUMPHRY asked if the deputation could state what was the general feeling of local practitioners throughout the country in regard to the subject under discussion.

Dr. HOLMAN replied that the opinion throughout the country amongst local practitioners was almost unanimous in respect to the value of the Bill.

Dr. HAUGHTON suggested that there were certain difficulties in the Bill as it affected Wales and Ireland.

The PRESIDENT thanked the deputation, and added that the Council was obliged to the members for submitting their views on this important matter. The Council had received from the Government a copy of the Bill, and had already referred it to a committee of their body. The committee and the Council were glad to have heard the views of the deputation, and would give them their fullest consideration.

VISITATION OF EXAMINATIONS.

The Council again went into committee, and resumed the consideration of the report of the Visitors of Examinations.

Mr. TEALE moved, in pursuance of the recommendation in the report, "That having regard to the great and increasing

range of chemical and physiological science, candidates should be informed beforehand of the limits of the examination in these subjects." Everyone, he said, would acknowledge that the area of physiology and chemistry had been greatly extended of late years, and it was therefore desirable that in the examinations some such limitation as the visitors had recommended should be introduced.

Sir WM. GULL seconded the motion.

Dr. SMITH said he considered the motion unnecessary, as the proposed limitation was already included in the recommendations of the Council.

After a brief discussion, Mr. Teale modified his resolution as follows: "That in view of the great and increasing range of chemical and physiological science it is particularly desirable, in regard to these subjects, that examining bodies should comply with Recommendation 40 of the Council, and that the candidates should be apprised beforehand of the examinations in these subjects."

Dr. HAUGHTON asked whether the resolution would apply to the universities as well as to the medical corporations. If it did, he should feel compelled to move that it be restricted to candidates for licences from the medical corporations. The University of Dublin wholly dissented from the recommendation, and would never adopt it. It would degrade their examinations in chemistry and physiology to tell the candidates beforehand of what particular branches they would be examined in. It would be impossible for a high class body like the University of Dublin to adopt such a schoolboy programme.

Dr. SMITH called attention to the following statement of the King and Queen's College of Physicians in Ireland, "The College consider that there are serious objections to define the limits of the examinations in the subjects of chemistry and physiology, and believe that these are sufficiently defined by the scope of the lectures required by the medical authorities. In fact, the College have never had any remonstrance from teachers or candidates regarding the indefinite character of the information demanded on these subjects." Such remonstrance would be almost impossible in consequence of the strictly practical nature of their examinations.

Sir WM. GULL said that the University of London had prescribed certain limits in its curriculum.

Dr. STORRAR thought it desirable that attention should be called to the recommendation of the Council already given with regard to the subject referred to in the motion.

Dr. WATSON moved as an amendment that questions of physiology should be considered apart from that of chemistry.

Dr. PETTIGREW seconded the amendment, which was put and negatived.

The PRESIDENT, in putting the original motion, said he thought it was a matter of great importance that the recommendation of the Council should be enforced, and that special attention should be called to it in the way proposed in the resolution.

The motion was then put and carried.

Dr. HAUGHTON moved, as an addition to the resolution, the words, "For ordinary licences to practise"; but withdrew it on the suggestion that the position of the Universities would be in no way affected.

FINANCE.

The Council having resumed,

Dr. QUAIN presented the following report of the Finance Committee:—

"The Finance Committee reports that the income of the General and Branch Councils for the year 1881 (ending January 1st, 1882) has been £6509 7*s.* 11*d.*, an amount which is £362 11*s.* 1*d.* less than the income of the year 1880. The expenditure during the year 1881 has, however, been only £4786 14*s.*, which is less than the expenditure of 1880 by £517 14*s.* The Committee has, therefore, the satisfaction of reporting to the Council that the excess of income over expenditure for the year 1881 amounts to £1722 13*s.* 11*d.*, the excess of income for the previous year, 1880, being £1568 1*s.* Table B annexed to this report indicates the increase and decrease of the several items of expenditure which have taken place during the years 1879, 1880, 1881. From this Table B it will be seen that the chief item of expenditure wherein there has been an increase, during the year 1881, is the visitation of examinations, which amounts to £920 19*s.* 6*d.* In the house expenses there has been an increase of £93 5*s.* 5*d.*, owing mainly to repairs carried out, and the production of the Medical Register has cost £28 3*s.* 3*d.* beyond the amount expended on this item during the previous year. The principal items of diminished expenditure of the year 1881, as compared with 1880, are as follows:—(1) Fees paid to Members of Council, amounting to £493; (2) publication of the Pharmacopœia, amounting to £483 5*s.*; (3) Printing, £253 14*s.* 1*d.*; (4) law expenses, £83 19*s.*; and (5) salaries and retiring allowances, £68 4*s.* 7*d.* The latter have now ceased. While, therefore, the total increase of expenditure in respect of certain items is £1050 1*s.* 2*d.*, the total decrease in respect of other items amounts to £1486 13*s.* 9*d.*, showing, on the whole, a decrease in expenditure of £436 12*s.* 7*d.* [From Table C, which shows the average income and expenditure of the General and Branch Councils during the last seven years, it will be seen that the average yearly income, during that period, exceeds the average yearly expenditure by £434.

"*Visitation of Examinations.*—The Committee deem it desirable to mention the several items, with the view of comparing them with like expenditure in former visitations. The sum of £1279 17*s.* 10*d.* (made up of the following items: Visitors' fees, £791 14*s.*; travelling and hotel expenses, £135 6*s.*; and printing, stationery, shorthand writers' fees, &c., £352 17*s.* 10*d.*) has already been expended in the visitation of the nine medical corporations, and various other sums in respect of expenses incurred have yet to be paid. Comparing the expenditure thus far with that incurred on previous similar occasions, it will be found that in 1873-4 ten visitations were conducted at a total cost of £598 10*s.*, and in 1874-5 thirteen visitations involved a total expenditure of £1174 19*s.*

"*Dental Finance.*—Table D shows the receipts and expenditure of the Dental Registration Fund for the year ending January 1st, 1882. In the receipts, £690 16*s.* 2*d.*, it will be noticed, there is an increase of £74 8*s.* 11*d.* over those of last year, while the expenditure, £1148 7*s.* 3*d.*, has been less by the sum of £660 3*s.* 4*d.*, leaving the deficiency of income for the year £457 11*s.* 1*d.*, compared with a deficiency of £1192 3*s.* 4*d.* in 1880.

"*Investments.*—Pursuant to instructions given to them at the meeting of the English Branch Council in 1881, the treasurers have invested £4015 in the purchase of £4000 Consols, in the names of the trustees of the Branch Council, thus making a total now invested under this trust of £29,000 Consols.

"June 29th, 1882." "RICHARD QUAIN, M.D., Chairman.

The report was unanimously adopted, and the Council adjourned.

FRIDAY, JUNE 30TH.

Mr. MACNAMARA asked the President (pursuant to notice) whether it was proposed to take into consideration the report of the Royal Commission.

The PRESIDENT said there was no notice of motion on the programme having reference to the subject, and he had received no private notice of the intention of any member to move in the matter.

VISITATION OF EXAMINATIONS.

The Council went into committee to resume the consideration of the report of the visitors on examinations.

Mr. TEALE brought up Conclusion No. 3—viz., "That at the final examination candidates should be examined orally or practically on strictly regional anatomy—that is, on the parts of anatomy which illustrate surgery and medical diagnosis, and not purely descriptive anatomy." This, he said, he proposed to bring forward in a somewhat modified form. Like some of the other conclusions, it was in accordance with the previous recommendations of the Council; but some objections had been taken to the form in which it was expressed. The object of the visitors was to call attention to two main points: one that in the final examinations students often seemed to have forgotten very much of their anatomy; and, secondly, that questions were sometimes put in the final examination which hardly came within the range of anatomy, and might fairly be expected at the primary examination. The primary examination in anatomy should be more or less minute, very much apart from its practical bearing, but in the final examination it should have special reference to its practical application. Whatever anatomy was required at the final examination should be thoroughly good and well brought up, and no more should be required than was fairly reasonable. The requirement

was fairly expressed in Recommendation 30, "The candidate shall be examined in medicine, including medical anatomy, and in surgery, including surgical anatomy." The visitors felt that the knowledge of medical and surgical anatomy was not what it ought to be and might be without putting an undue burden upon the students in their final years of study. At the primary examination of the Society of Apothecaries, London, a very good method was employed for testing the students very accurately in their knowledge of the human body and the position of the various organs, and the same thing was carried out from a surgical point of view by the Royal College of Surgeons. The visitors were much struck by the capabilities of the method of examination shown by those two bodies. With a view of bringing the conclusion into harmony with the recommendation of the Council, he would propose it in the following form, "That it is desirable that at the final examination candidates should be examined in medical anatomy and surgical anatomy."

Dr. HAUGHTON objected to the terms "medical" and "surgical" being applied to anatomy. Anatomy was anatomy, and nothing else. They might as well talk of Catholic mathematics and Protestant mathematics.

After some discussion as to the precise phraseology which should be adopted, the Council agreed to the conclusion in the following form, "That at the final examination candidates should be practically examined in anatomy in its relation to practical medicine and practical surgery in accordance with Recommendation 30."

Mr. TEALE proposed the adoption of Conclusion No. 4, "That it is desirable that in every final examination for a surgical diploma a candidate should, as far as practicable, be required to perform operations on the dead subject, in accordance with the intention of Recommendation 44." Such operations, he said, formed a very valuable feature of the examinations. It was thoroughly carried out in Dublin on a moderate number of subjects, and without requiring an extravagant amount of time. Before seeing that examination he should have been inclined to vote against such a proposal, but he was now convinced that it was an extremely valuable method, not only of testing the students, but of directing their work beforehand.

Sir WM. GULL seconded the motion, and, referring to the difficulty of obtaining subjects, said he believed that that very difficulty tended to beget a spirit of reverence in the minds of the students, which was at the bottom of all true science. The student knew that he could not take a human body, like a piece of wood, and do anything he liked with it; and the very scarcity of the subjects was likely to create a feeling of reverence for every living thing.

Mr. MACNAMARA thought that conclusion should be worded much more strongly. Operations at examinations had been in abeyance at several institutions. It was monstrous for a corporation to certify that a man was a surgeon, and capable of performing important operations, without having tested him to ascertain whether he could perform any operation whatever. The fact that a student knew that he would certainly be called upon to perform certain operations would be of the greatest value in surgical education. If the bodies that had hitherto ignored the recommendation of the Council on that subject would try the experiment, he believed they would find it successful; but if they found that it "starved" the dissecting room, as had been suggested, they could of course abandon it.

Mr. MARSHALL agreed that the recommendation should be carried out wherever it was practicable, but he did not believe in its absolute necessity, and in many cases it would be quite impossible to carry it out. It was impossible to teach the students to perform all operations. In the College of Surgeons the operative classes were well carried out; but even there it was impossible to enable any individual student to perform more than ten operations, and there was a drag upon the anatomical supply to meet even that slender requirement. It was better to teach well and examine imperfectly than to teach imperfectly and examine highly. Their forefathers were not so completely examined, but there were no better surgeons than they proved themselves to be. His own master was not a highly examined man, but he would rather allow him to take off his arm than any person he had ever known.

Dr. CHAMBERS said that the duty of an examiner was to ascertain whether a man had gone through a course of operative surgery, and that could easily be ascertained by seeing how he performed one or two operations.

Mr. TURNER agreed with everything that had fallen from Mr. Marshall.

Dr. HAUGHTON said he should prefer the omission of the words "as far as practicable"; but perhaps they were required by the necessities of the case. He thought that every effort ought to be made to render the method compulsory.

The motion was then put and agreed to.

Mr. TEALE brought forward Conclusion No. 5 in the following modified form, "That it is desirable that the examination in operative surgery should for the most part be directed to emergency operations, such as amputation, deligation of arteries, catheterism, tracheotomy." The object, he said, was not to push the extension of examinations too far. Common sense should of course be brought to bear upon the subject, and it evidently required that a man who went out as a general practitioner should be able to give some sort of guarantee that he knew how to amputate a limb and perform such other operations as he might be called upon to do at any moment. It was not desirable, however, to press things that were not absolutely essential.

Mr. MARSHALL thought it would not be wise to tie the hands of the examiners by limiting the operations which the students were required to perform.

Dr. HAUGHTON said if the particular operations were specified, teachers would teach nothing else.

Mr. TURNER thought a great deal ought to be left to the discretion of the examiners.

Dr. HUMPHRY thought that no recommendation should be passed on the subject. "Emergency operations" could not be defined. The result of such a recommendation would be to restrict the range of teaching without benefiting the examinations.

After some further discussion, Mr. TEALE said that he was satisfied with the discussion that had taken place, and he would therefore withdraw his motion.

The next "conclusion" of the visitors was then read, "That the application of bandages and splints should be required in every surgical and clinical examination."

Mr. TEALE, in moving its adoption, said that the students, in preparing themselves for this part of the examination, would not be wasting time, but would be qualifying themselves for their professional labours without overtaxing their brains.

Sir WM. GULL seconded the motion, but suggested the omission of the words "and clinical."

Dr. HALDANE, in supporting the motion, called attention to the remarks of the visitors in reference to the clinical examinations at the College of Physicians and Surgeons of Edinburgh: "Another weak point was that there was no systematic provision of padded splints for the candidates to select from, as was the case at the Glasgow hospitals; but each candidate had to apply to the ward nurse for the materials he needed, and make the best of what the nurse chose to supply. The Glasgow plan not only economises time, but appears to be a more adequate test of the efficiency of the candidate." The surgical examiners entirely disapproved of these observations of the visitors, believing that it was far better to test the candidates' knowledge by making them select the splints themselves. Each candidate was in the same position as a surgeon in his infirmary; he did not take what the nurse might choose to supply, but asked her for what he wanted. If it were understood that the splints alluded to were not to be padded, but left to the judgment of the candidate, he should agree with the resolution.

The motion was then put and carried.

With reference to Conclusion No. 7, "That the examination of normal and morbid urine should be an essential part of every clinical examination in medicine,"

Sir WM. GULL questioned the propriety of the examiners dealing with one excretion only, and added that he had himself gained more information by the examination of stools than of urine.

Dr. HAUGHTON said that if the conclusion were adopted students would never study anything but urine all their lives.

Mr. TEALE said he would not press the motion, and it was accordingly withdrawn. He then proposed Conclusion No. 8, "That the practical examinations in chemistry should, when feasible, be conducted in a laboratory." He said if the examination in practical chemistry were to be anything like a test, it could hardly be carried on satisfactorily as part of a viva voce examination of the candidate in a quarter of an hour.

Dr. HAUGHTON suggested the omission of the words "when feasible," and said that it ought always to be feasible. He could not conceive of there being any practical difficulty in the way.

Mr. TURNER asked what was meant by a laboratory.

Mr. TEALE said that the visitors did not mean a permanent laboratory, but would be satisfied with a temporary laboratory fitted up for the purpose of the examination. The object was to have the examination conducted distinctly from the *viva voce* part. The candidate should be able to go to a separate table with appropriate solutions and tests which he should be required to recognise.

Dr. HAUGHTON said that a few solutions on a table would not be sufficient. The candidate should be required to go into a laboratory and do certain things that could only be done there. If the examination were not carried out in that way, he should prefer to have it entirely conducted by written papers.

Mr. TURNER said he presumed that examiners would be satisfied with qualitative analysis and would not require quantitative analysis; a judicious selection of tests, he thought, would be generally sufficient.

Dr. PITMAN said that the examination in practical chemistry of the College of Physicians was conducted in a laboratory especially fitted up for the purpose; and he should be glad if the visitors would inspect it and see how carefully the College had provided for the examination.

Mr. MACNAMARA supported the motion.

Dr. STORRAR described the method adopted by the University of London examinations, which, he said, were conducted in a large room fitted up as a laboratory with a series of compartments or boxes for the candidates, who were required to give written answers to the questions as the results of experiments that they were obliged to undertake.

The motion was put and agreed to.

Mr. TEALE then read Conclusion No. 9: "That a practical knowledge of the histology of tissues and chief organs should be required of all candidates for medical or surgical diplomas," which he said he felt inclined to withdraw, as being too much a matter of detail.

Mr. TURNER said that the Council had already issued a recommendation on the subject to the effect that observations with the microscope should form a part of the examinations of the candidates for licences.

Mr. SIMON said that if the recommendation had not been properly carried out (as appeared from the remarks of the visitors), some resolution ought to be passed directing attention to the subject.

Mr. TEALE said that the visitors were of opinion that in the examinations of some of the bodies the recommendations of the Council had not been sufficiently attended to. He then proposed, "That it is desirable that the recognition of microscopic specimens, normal and morbid, should form a part of the examinations for medical and surgical diplomas," which was seconded by Dr. PETTIGREW, and, after a short discussion, was agreed to.

Mr. TEALE then moved, "That in oral examinations, where the time allotted is strictly limited, for instance, to ten minutes or a quarter of an hour, there is a serious risk that candidates of an average ability who have been conscientiously taught and fairly prepared in their work may be rejected owing to misunderstanding or nervousness, and this is a hazard which, reacting as it does injuriously upon study and teaching, ought to be, if possible, avoided by allowing a margin of additional time for satisfying the examiners in all such cases. The actual practice of certain boards, and especially of the Colleges of Physicians, shows that this suggestion is not impracticable, although it may be more or less difficult to carry out where the numbers are very large. The visitors think that no mere difficulty of mechanism should be allowed to interfere with its being adopted as a measure of justice to candidates." The motion, he said, raised a point to which the attention of the visitors was directed—namely, the cause of the numerous rejections. In all the bodies a very large proportion of the candidates, varying from one-third to a half, was rejected. With regard to the College of Surgeons of England, especially, he could not but think that the very perfection of its splendid mechanism not unfrequently led to unnecessary rejections. They all knew that the College of Surgeons was generally reputed to reject candidates who in the opinion of their teachers and fellow-students were thoroughly good, and there was, he thought, sufficient testimony to show that that happened more frequently than it ought to do. He desired to be understood as speaking only of the primary examination. As an illustration of what he meant he might mention that an anatomical teacher and an examiner in anatomy in another body, who had sent up a dozen candidates for the April examination, told him that he knew that several of the candidates would be rejected, but he could not say which. It was an unfortunate thing if, in a good examination, men who were industrious and well prepared could not have a reasonable certainty of passing, and he could not help thinking that the uncertainty that existed would lead to some amount of cramming, and the spending of a good deal of time in over-preparation in order to make the candidates secure. In order to obtain absolute fairness and impartiality the examination at the College of Surgeons was divided into four stages, each conducted by a different examiner, so that there was no possibility of any general view being taken of what the students had done. Of course, the reasons for continuing that method might be insuperable, but he desired to point out the impressions made upon the visitors that the system of marking adopted led to a certain amount of uncertainty. If, for example, a candidate obtained three marks for his paper on physiology, and then came up for the *viva voce* examination, and the examiners hesitated whether they should give four or five marks, the total aggregate number being eight, their decision would decide the question of his passing; they would not be guided, in arriving at it, by what the candidate had done before, but simply by the part of the examination which they had themselves conducted. If the examiners saw the paper work in addition to hearing the *viva voce* examination, they would be able to give a fairer judgment on the whole matter. Again, so much of the examination was conducted by the rigid quarter of an hour rule that many candidates were unable to do themselves justice. If a candidate were questioned upon a point with which he was not thoroughly familiar, and spent a little time upon it, his chance was almost gone. The examinations appeared to be conducted with the object of seeking for ignorance instead of for knowledge. In so wide a subject it was impossible that every candidate should be thoroughly up in every part of it, and any candidate, therefore, might be questioned upon a point upon which he was weak. Some of the examiners, the visitors observed, acted with great judgment in occasionally helping the candidates where they hesitated, and so economised time. He did not suggest that the Council should ask the College of Surgeons to make any alterations, but it was well perhaps that the Council and the College should know what was the feeling of impartial visitors on the subject, in order that they might take it into serious consideration. At the examinations of the College of Physicians more time was given in the *viva voce* part.

Dr. BANKS seconded the motion.

Mr. MARSHALL said he should be able to show that the "general impression" alluded to by Mr. Teale was incorrect. The visitors had laboured under a great disadvantage from the fact that their visitations were upon a come-and-go principle; and he believed if they had witnessed a year's work of the College of Surgeons, and examined the whole of the statistical results, they would have arrived at a different conclusion. He did not deny that there might be individual cases of hardship; and those cases would, of course, be more numerous where there was a very large number of candidates than in the examinations of smaller bodies. Comparing the rejections at the primary or scientific examinations of the different bodies, he found that the percentage of rejections at the College of Surgeons was lowest of all, being 29½ per cent., which showed distinctly and conclusively that the examination was not so severe as had been suggested. He did not complain that the visitors had brought the subject forward, because it was useful that the examiners of every institution should be occasionally reminded of the peculiarities of their examinations. The visitation was an admirable one, and had done a great deal of good; but in looking at the subject, the Council should view it as broadly as possible, and not always take a candidate's or a teacher's view of the cause of rejection, or even a visitor's view. The examiner was superior to the visitor, knowing the kind of men who presented themselves, and having a duty to fulfil to the College, by whom he was appointed. He considered that there was something a little out of the way in the Council calling the bodies to account for their rejections.

The further consideration of the motion was adjourned.

The case of David Beatson Murdoch was considered in private, and he was summoned to attend the Council on Tuesday.

SATURDAY, JULY 1ST.

The Council, in Committee, resumed the consideration of Conclusion No. 10 of the Visitors' Report with reference to the time allowed for examinations.

The PRESIDENT reminded Mr. Teale that the conclusion which he had moved was not strictly in the form of a resolution, and therefore required modification before being submitted to the Council.

Dr. HAUGHTON dissented *in toto* from the recommendation of the visitors, who, he said, had lost themselves in a labyrinth of words. As a practical examiner he could not accept the view that candidates of average ability who had been conscientiously and fairly prepared were likely to fail from "misunderstanding or nervousness." For those two words he would substitute "ignorance or stupidity," which had probably a great deal more to do with the rejections. Mr. Marshall's comparison of percentages completely destroyed the force of the visitors' recommendation. The proportion of the College of Surgeons, 29½ per cent., was the lowest in the table except that of Trinity College Dublin, which was 28 per cent. Some examining bodies boasted of their high proportion of rejections; but the fact was that figures of that kind formed no test of the severity or purity of the examinations; they only showed (assuming that they were pure) the relation of the preparedness of the candidates to the examinations. In some of the best examinations of the University of Dublin, outside the medical school, the proportion of rejections was not 5 per cent. The students knew what the standard was, and it would be a disgrace to their teachers if they were plucked. Mr. Marshall's figures showed that at the College of Surgeons a smaller proportion of candidates was rejected than at other corporations; and he had no doubt that the examination was conducted in such a way as to give a fairly prepared candidate every facility for passing. He could not agree with the visitors in regard to the fifteen minutes' question. He had often found in examining a candidate *viva voce* that he could make up his mind to pass him in five minutes, while another would require ten. As far as he could judge, a quarter of an hour was quite long enough for testing *viva voce* in anatomy and physiology. In the examinations at the University of Dublin the whole court of examiners came together to discuss the cases, and no power of veto rested with any of them. He did not think it was well to put such a power in the hands of any examiner. Such a system would be more likely to lead to the rejection of well prepared candidates than any amount of nervousness; and if rejections of that sort were numerous it was evident that something ought to be altered in the system adopted for examination.

Mr. TEALE said he proposed to bring forward his resolution in the following form, "That in oral examinations where the time allowed is strictly limited, for instance, to ten minutes or a quarter of an hour, there is a serious risk that candidates of average ability who have been conscientiously taught and fairly prepared in their work may be rejected for a misunderstanding or nervousness, and this ought, if possible, to be avoided by allowing a margin of additional time for satisfying the examiners in all doubtful cases."

Dr. SCOTT ORR said that Mr. Marshall's observations were worthy of the serious consideration of the Council; but he thought that some latitude should be allowed with regard to the time during which the candidates were examined. Five or ten minutes might be sufficient to test a good candidate or a very bad one; it was the middle men who were the most difficult to test, and many of them might require more than the prescribed time.

Dr. BANKS, in supporting the resolution, said he disclaimed any idea of throwing blame upon anyone. At the final examination of the University of Dublin candidates had frequently complained to him that the time was too short. He did not agree with Dr. Haughton that the slow men were necessarily stupid. There were many who were not quite so bright and ready as the others, but who were by no means stupid, and who, if sufficient time were allowed, would be able to pass the examination.

Dr. LYONS said that some candidates could be tested in a very few minutes, but others, whose comprehension was slower, required a longer time. He thought that an undue amount of attention was sometimes paid to examinations. He agreed with the late Dr. Stokes, who said he would rather secure a perfect system of education than a perfect system of examination. Slow students often turned out better men than those who were more brilliant. What was wanted was to test the knowledge of average men. The system of examination had its faults as well as its merits, and no doubt many able and useful men were shut out of the public service only by the system of competitive examination, while a number of weedy horses, because they were able to put on a spurt for a moment, were admitted.

Mr. MACNAMARA said it should be borne in mind that the fifteen minutes' *viva voce* examination was supplemental to the written examination. If a candidate did not know anything about the subject in which he was examined a very few minutes would suffice to ascertain the fact, and a prolonged examination under such circumstances would not be attended with any advantage. It was necessary where there was a large number of candidates that the times should be so arranged as that the students might come on in their proper order. He never heard rejected candidates complain that they had not time enough; probably they had too much, and the longer they were under examination the more reason they had to regret it. He thought it undesirable that the Council should descend to such matters of detail, and that some latitude should be allowed to the corporation in the working of their various systems.

Mr. TURNER said that when he was an examiner at the London University he learned the great value of some latitude being allowed as regards time. At Edinburgh at first there was no such latitude, but at present there was, and he had sometimes occupied as much as half an hour in the examination of a candidate, while on the other hand he had occasionally disposed of one in ten minutes. When the time was limited he was afraid that justice was not always done in the case of sensitive and shy men.

Dr. HUMPHRY said he did not understand what was meant by the expression that some examiners examined as if their object was to find out ignorance, and others as if to find out knowledge. It appeared to him that he could not do the one without doing the other. Examination and education were reciprocal, and if the Council perfected the former it would perfect the latter. At the College of Surgeons, although a veto might be given at a particular table, it must always be by two examiners; and it almost always appeared that a candidate vetoed at one table had not gained sufficient marks at the other tables to entitle him to pass even if he had not been vetoed. If the marks were so near that he would almost have passed, an opportunity was given to the examiners to reconsider their decision. He very seldom found that any of his pupils who he thought ought to pass were rejected by the College of Surgeons. In his opinion the definiteness of period, while having certain disadvantages, had also certain advantages. It caused the examiner to commence at once, and avoided those few minutes when the candidate would otherwise be nervously wondering what he was going to be asked. But there were cases in which a man answered scarcely well enough and the examiners felt in some doubt. Then it was desirable that a larger amount of time should be given. He was therefore willing to assent to the view that some little latitude should be given as to time.

Dr. PETTIGREW supported the motion, because he considered that everything possible should be done to protect the students. Examinations did very little for a man, the teaching and training doing everything. To many men rejection was equal to condemnation, and if a little latitude were allowed many a good man might be saved the mortification of rejection.

Dr. HALDANE said he regarded this question as one of detail, into which the Council should not enter. It was a subject for the bodies and the examiners to decide upon. As stated by Mr. Turner, the University of Edinburgh had changed its system, and a similar change would take place wherever it was found necessary, and therefore the Council need not lay down a formal resolution on the subject.

Dr. PITMAN said that formerly the practice in the College of Physicians was to limit the time to a quarter of an hour, but it was found to be so unjust to the candidate in some cases, that power was given to the examiners to deal as they pleased with the matter of time.

Dr. QUAIN said one point appeared to have been overlooked in the discussion—namely, the sacred duty of the

examiner to the candidate. What could be more unjust to a man than to reject him, when, perhaps, five minutes more would get him over his nervousness? Some examiners, too, committed the fault of trying to display their own knowledge.

Mr. MARSHALL said that the total rejections at the College of Surgeons amounted to 29·75 per cent., and out of 111 rejections only 11 were actually vetoed. On the whole, he was in favour of a fixed time for the examinations; but there might be a qualification permitting an extension in doubtful cases. The practice of the College of Surgeons was in accordance with that principle, and the reason why it did not appear that many men had the advantage of it was that the system of veto was much more gentle in its operation than might be supposed. The large majority of the rejections were of those who failed to get the requisite number of marks, and did not arise from the individual action of one table.

Mr. SIMON did not regard the question as one of mere detail. It was rather whether certain examinations were as certain in their results as they might be. It was of supreme importance that all candidates should be able to expect the greatest attainable certainty of result in all the examinations; and he agreed with the visitors that with a hard-and-fast line as to time such certainty could not be absolutely reckoned on.

Dr. CHAMBERS said at the College of Surgeons, Ireland, the *viva voce* examination was supplementary to the paper work; but at the College of Surgeons, England, the *viva voce* examination was quite independent of the written examination. In the latter case, therefore, more time might be required.

Sir WM. GULL said he was quite sure that in consequence of nervousness a good many men were rejected who ought to pass. The duty of the Council was to protect the students as far as possible, and he thought they might come down upon the examiners a little and see that they did their work thoroughly well.

Dr. PETTIGREW regarded examinations as a necessary evil, and thought the Council would make a great mistake if they attached too much importance to them. He knew one case where a student was rejected, not only at a first, but at a second, examination, but he was now a professor of European reputation.

Dr. BANKS said there were some examiners who when they found a candidate weak upon a subject pertinaciously stuck to that subject, instead of taking him over a large range and endeavouring to find out what he really knew. Under such an examination good men might frequently be rejected. The object should be to elicit what was known, and therefore he strongly advocated the elasticity of examination.

Dr. STORRAR said that some thirty-five years ago Dr. Sharpey, when examining a candidate at the London University, asked, "Can you tell me anything about the circulation of the blood?" The answer was, "The blood goes out of the heart, down one leg, Sir, and up the other." Dr. Sharpey was equal to the occasion, and asked, "And how does it get across?" That was an extravagant illustration of the state of mind that some students got into, and their answers were then no indication of their intellectual powers.

Dr. HAUGHTON said that the report of the visitors left an unpleasant impression upon his mind that there was a charge against the colleges that owing to the absence of some such rule as that referred to in the motion substantial injustice had been done to some candidates. To his mind such a charge was utterly unfounded.

Mr. SIMON said that the question under consideration was not the historical one whether injustice had been done, but whether the tendency of the system was to do it.

Sir WM. GULL said there was an impression abroad in large medical schools that there was an uncertainty in the examination, that a man might be well-informed and yet get rejected.

Mr. MARSHALL said if the resolution were to be associated with such an impression in regard to the examinations of the College of Surgeons, that body would undoubtedly send some answer to the Council. Dr. Chambers had referred to the fact that at the College of Surgeons, Ireland, the written papers were laid before the oral examiners; but what was the use or justice in testing a man's knowledge of having the answers given three days before placed before the examiners in order that they might enable the candidate to correct some errors in the paper? By that time he had discovered what blunders he had made, and had prepared correct answers. It was much better that the examiners should act independently and give independent reports.

Dr. LYONS suggested that a little verbal alteration in the motion would be advisable, so that it should read, "That in oral examinations, notwithstanding any general rule which limits examinations to ten minutes or a quarter of an hour," &c.

Mr. TEALE, in reply, reminded the Committee that it was an instruction to the visitors to inquire into the causes of the numerous rejections, and that was the ground on which this subject was brought forward. If the recommendation had needed any justification the discussion had afforded it. Mr. Marshall had supported his view by statistics; but the statistics for the last five years showed that the rejections in the primary examination at the College of Surgeons (England) were 33 per cent.; at Edinburgh, for the double qualification, 36 per cent.; and at the College of Surgeons (Ireland), 40 per cent. At the first of these there was a practical sifting before the examination, so that the candidates came up better prepared. He hoped that none of the resolutions on this subject would be taken as reflecting upon anybody. In framing them he was entirely free from any such feeling.

The PRESIDENT said that no one who looked at the whole tenor of the report could doubt for one moment that the suggestions of the visitors were expressions of convictions forced upon their minds after long and laborious investigation of the examinations over the whole country. Anyone who had been in the Council for many years must feel that instead of recriminations between different bodies as to the numbers of persons passed who ought not to have passed, the discussion had been one of the quietest and most serious that had ever occupied the time of the Council. Their object had been to ascertain whether it was or was not true that some examinations were uncertain, and whether that uncertainty implied the occasional rejection of really good men. The total result of the whole discussion was the bringing of the whole force of the representatives of all the examining bodies to see in what way the examinations could be made more perfect in all their parts. He was only surprised that there should be any doubt at all that under the severe intellectual pressure brought to bear upon the candidates many excellent persons failed, not from want of knowledge, but from want of power to endure the strain of the examination.

The resolution was carried with five dissentients.

On the motion of Dr. PITMAN, seconded by Mr. TEALE, the Council resumed.

Mr. MACNAMARA called attention to the case of Mr. Hartley Dixon, concerning whom a letter had been received from the South Australian Branch of the British Medical Association, complaining of certain proceedings on the part of the Apothecaries' Hall of Ireland. He said that this letter was referred to the Executive Committee, who, after ascertaining the facts of the case, forwarded the answer of the Apothecaries' Company to the South Australian Branch of the British Medical Association. He could not understand why the committee had taken such a step, instead of bringing the subject before the Council, and having the whole matter settled. He was satisfied that the governor of the Apothecaries' Hall was ready to prove to the Council that the Company had acted strictly within its legal rights. He therefore thought the subject should now be taken into consideration.

Mr. COLLINS asked if the question would be reopened in case any reply should be received from the South Australian Branch of the British Medical Association.

The PRESIDENT said it was not quite clear what further light could be thrown upon the subject until the reply was received.

On the motion of Mr. MACNAMARA, seconded by Dr. HAUGHTON, the further consideration of this matter was adjourned till Monday.

REPORT OF PHARMACOPŒIA COMMITTEE.

Dr. PITMAN moved that the following report of the Pharmacopœia Committee be received, entered on the minutes, and adopted:—

"The Committee have to state that after due inquiry they have not obtained sufficient information to enable them to report in accordance with the terms of the Council's resolution, 'That it be an instruction to the Pharmacopœia Committee to report to the Council year by year as to

addenda.' The Committee report further that the present stock of the last edition of the Pharmacopœia amounts to 2550 copies, and that the average annual sale is about 1000 copies; thus a fair estimate may be obtained as to the period at which it will become necessary to supply a new edition. With a view of taking steps towards the publication hereafter of another edition of the Pharmacopœia, the Committee make the following recommendations:—(*a*) That the Pharcopœia Committee be a standing committee until the issue of the work; (*b*) that the Committee be authorised to appoint from amongst its own members a sub-committee, to assign to it such duties as it may think fit, and to take such other steps as may be necessary for fulfilling the duties assigned to it; (*c*) that a sum not exceeding £100 per annum be placed at the disposal of the Committee.

"June 30th, 1882." "RICHARD QUAIN, M.D., Chairman.

Dr. A. SMITH seconded the motion.

Dr. STORRAR wished for more detailed information as to what the committee were about to do before the Council gave them power to expend £100 a year.

Dr. QUAIN said it was proposed that the sub-committee should take steps to appoint editors who would draw up a report to be submitted to the Council as to what should be done with regard to the Pharmacopœia. No steps could be taken towards issuing the work until the reports came before the Council.

Mr. SIMON expressed a hope that at least one of the editors would be a person well acquainted with pharmacology abroad.

The resolution was agreed to.

The standing orders having been suspended on the motion of Dr. Pitman, seconded by Mr. Turner,

Dr. CHAMBERS moved "That a committee be appointed to consider the abuses which arise from the employment of unqualified assistants by registered practitioners, and to report to the Council whether any means can be adopted for checking these abuses without diminishing the conveniences of the present practice." His reason for bringing forward this motion, he said, was not so much the complaints of the public as the serious injury done both to the good fame and to the pockets of the profession by the abuses complained of. In the north of England the miners preferred bone-setters to properly qualified practitioners, who were often sent for only when the patient was dying.

Mr. BRADFORD seconded the motion.

Sir WM. GULL said there were bone-setters in London who were much more believed in by some people than experienced Fellows of the College of Surgeons; but the Council had no power to deal with that subject. Unless a man's name was on the Register they had nothing to do with him.

Mr. SIMON thought the Council might explain to the profession what they considered an abuse of the employment of unqualified persons.

Dr. HAUGHTON said that His Grace the Archbishop of Dublin employed a bone-setter only six months ago.

Dr. A. SMITH recommended the omission of the words "without diminishing the conveniences of the present practice."

This was agreed to, and the motion was carried unanimously.

The Council then adjourned.

MONDAY, JULY 3RD.

The Council resolved itself into committee to resume consideration of the conclusions arrived at by the visitors of examinations.

Mr. TEALE moved the 11th conclusion, "That with a view to the economy of the time of the examiners it is desirable that when a candidate has obtained rejecting marks in the written portions of an examination he should not be required to proceed to the oral." He said he had hesitated as to whether he should bring forward this motion or not, but two members of the Council had expressed a wish that he should do so. The visitors felt that after they had recommended certain points which would seem to impose additional labour on examiners in order to make the examinations more satisfactory, some consideration should be given as to how this could be done without calling upon the examiners to spend more time on the examinations than they did at present. If there was one thing that had struck the visitors more than another it was the amount of voluntary work that was done in the examinations. It was quite clear to them that unless a large number of leading members and teachers of the profession were content to devote their time to the work of the examination of their bodies from a feeling of *esprit de corps* the bodies could not command the high standard of examiners that they did at present. He was extremely anxious that the examinations should be in the hands of the profession and the bodies themselves rather than relegated to anything like a State appointment, because a State-appointed body would be pledged to one of two courses, either to go to infinitely greater expense to command the services of such men as the bodies now command, or to throw the examinations into the hands of persons very much less experienced. In this point of view economy must be searched for in the method of examinations; therefore it was thought that students who were hopelessly condemned by the marks they had obtained in their paper work should not be dragged through the oral examination. He was quite aware that there were very forcible arguments against this, but the point to be considered was which course was open to the least objection. Akin to this was another suggestion, which, from its novelty, had not been well received, but he was sure that in due time it would receive consideration—namely, that the paper work should be carried on in England at the seats of teaching, thereby candidates might be saved coming up to the centre for examination.

Mr. MACNAMARA seconded the motion. He said that the visitors stated that the difficulty "had been solved by the Irish College of Surgeons in a remarkable manner." Such evidence having been brought forward it would have been a very unsatisfactory thing if the matter had been regarded simply as one of detail, and had not been brought under the consideration of the Council. It was perfectly clear that when a candidate entirely failed in the written paper and then went to the oral examination, a certain amount of useless work was thrown on the examiners. If the written examination was of importance, and a man showed he was wholly unable to pass it, to permit him to go on implied a certain amount of doubt as to the value of the written examination. It had been stated that to adopt the course suggested by the visitors would lead to an insufficient paper examination, but such was not the experience in the College of Surgeons, Ireland. It struck him that it would be advantageous for England if a great portion of the examination was conducted at the local centres, and the papers sent up to the examiners of the College, so that they might frame a list of those who had passed and those who had not passed. Then the candidates would know whether it was of any use their coming up to London for the oral examination. In the College of Surgeons, Ireland, if a man failed at one examination, he did not come up to the next. He was perfectly satisfied that the motion would not be carried, and he had very little doubt that ultimately the Council would see the propriety of endorsing this most important conclusion.

Dr. WATSON said he had been exceedingly anxious that this matter should not be allowed to pass without some remark with reference to a subject which might be said to be germane to the recommendation contained in it—namely, the question of the unfortunate rejected candidates. In most cases, when a candidate was rejected, he had to come up again for examination in the whole of the subjects which constituted the examination, and that appeared to be a great hardship. This condition of things was particularly unsatisfactory to the candidates with reference to the second or practical part of the examination, because the great mass of non-qualified assistants who should, if possible, be got rid of, came from the men who had been rejected in their second examination in the practical part of medicine, surgery, and midwifery. He urged the committee to consider whether some instructions could not be added to the conclusion in the direction of recommending to the examining bodies the propriety of re-examining a rejected candidate only in those subjects which he had previously failed to pass in. The mental condition of some men was such that they were unable to take up more than a single subject at a time to learn it thoroughly. He thought it would be advantageous if some such instructions as the following were added: "And that where a candidate has been referred in his written and oral examination only because he has not obtained pass marks in one or more, but not in all, the subjects, when he again comes up to examination he should not be examined in those subjects in which he had obtained satisfactory marks; and that any candidate who has once been referred may take any of the subjects in detail, and

should not be obliged to present himself for all the subjects included in that examination."

Mr. SIMON said he must at once enter a *caveat* as to some of the principles affirmed in Dr. Watson's speech. They would get into extreme danger with regard to the whole object of education if they admitted the principle of passing by instalments. The meaning of the licence was that at the moment of obtaining it a man was in possession of certain knowledge, not that at some antecedent period of his life he knew such or such a thing. If they were content with successive crams and little bits of passes it would be impossible to say what the worth of the guarantee was. As regards Mr. Teale's proposal, if that were the Council of the Royal College of Surgeons, and he had the honour of being a member of it, he should certainly vote for the resolution; but whether it was worth while for this Council to press it against the feeling of the representative of the College was a different question, and the subject was not one of such importance as to entitle them to take that course. The economy of time would be very small.

Dr. HUMPHRY thought it would not be wise for the Council to pass such a resolution, requiring or recommending a certain method of examination to the several bodies. The bodies should be left to conduct their examinations in such a manner as they themselves found best. He considered that the practice of the Royal College of Surgeons of Ireland to re-examine a rejected candidate from the point at which he had previously stopped was very objectionable. If the several bodies proceeded on that plan it would soon be necessary for the Council to visit the examinations in a different sort of spirit from that in which they had proceeded lately. It would also tend to make the examiners more liberal in their marks, if they felt that a failure in one branch of the examination shut a candidate out from the opportunity of passing in the other branches. A candidate who was rejected had to bear whatever discredit appertained to the plucking, and he ought to be allowed the advantage of going through the whole examination again. He himself had been surprised at the improvement which took place in candidates during the interval between rejection and re-examination, and he attributed it very much to the experience which the men had had of the examination in the first period. It should also be remembered that examinations were one means of lengthening the period of education to the required point. A large number of the more intelligent and diligent students could prepare their subjects in four years, but others could not do so, and were therefore referred back for further study. He felt very strongly that such candidates should have the full benefit of a second examination.

Dr. QUAIN said that the influence which the Council had had on education and examinations had not been obtained by interfering too minutely with the examining bodies, but by laying down general principles. If they went too minutely into these subjects the different bodies would all say, as the College of Physicians in London had said, "We have done it, and we will continue to do it."

Mr. MARSHALL said he should certainly vote against the resolution. If the plan suggested were carried out, the greatest economy of time that it could effect would be no more than one hour per day, and the examiners did not wish for that economy. He regarded the examination as a whole, although for practical purposes it was divided into written, oral, practical, or clinical; and it was decidedly better that a candidate should pass through the whole examination before the result was made known. The education afforded to a man by going through the examination was of very great importance, for it taught him how to prepare himself for the future. If they rejected him on the written examination it deprived him of obtaining any experience from the oral examination. To permit a man to pass on re-examination only in the subject in which he had previously failed would lead the way to an enormous deal of scamping. Students would only prepare for one part at a time. He urged the Council not to go too far and emasculate the bodies, destroying their influence and position, and causing them to lose heart in the work.

Dr. HAUGHTON said he could not comprehend what the meaning of conclusion No. 11 was. He had been quite electrified by some of the fossil principles of examination that had been dug up. He knew what the nine Muses were, and what the three Graces were, but he could not understand what the four vetoes were. It would not be tolerated for one minute in the University of Dublin. He strongly objected to the resolution as being altogether an improper detail. In the Dublin University there was no such thing as an oral examination in addition to the written examination. The examination was essentially practical—in the dissecting-room, at the bedside, in the laboratory, &c. If that was what was meant by an oral examination, he considered it ten times more important than the written examination. If a man failed in the written, perhaps through nervousness, and then came up and passed a brilliant oral examination, he would be allowed to pass. He was also strongly opposed to passing men bit by bit, and he objected to the *morale* that dictated the resolution, which was the convenience of the examiners, and not justice to the candidates.

Dr. SCOTT ORR considered that going through the whole of an examination was a most valuable lesson to a man. Like Dr. Humphry, he had been struck with the improvement which rejected candidates had shown when they came up for their re-examination. Many candidates who were rejected in the written examination might go away with the feeling that they had not had justice done to them, because they might have redeemed themselves in the oral examination. He therefore could not support the resolution.

Dr. HALDANE protested against the resolution, because it dealt too much with detail, with which the Council had really nothing to do.

Sir WM. GULL considered that it was *ultra vires* for the Council to make arrangements for the economy of the time of the examiners.

Mr. TEALE, in reply, said the *morale* of the resolution was that the visitors pointed out a method by which the difficulties which it had been urged would be experienced in dealing with very large numbers of candidates, if certain details were adopted, might be avoided. He quite agreed with Dr. Humphry that taking the candidate through the whole examination was a kind of education.

Sir WM. GULL moved the previous question.

Dr. LYONS seconded it.

On being put to the vote the previous question was negatived, as was also the original motion, for which only two hands were held up.

Mr. TEALE next moved a resolution embodying the twelfth conclusion of the visitors, "In any future revision of the curriculum, the subjects of hygiene, ophthalmology, and mental disease will command serious consideration, and perhaps admission, under careful limitation, as distinct elements of examination." He thought it was quite clear that the general practitioner ought to know of specialties such portions as would necessarily come under his own treatment at first. For instance, he should be able to undertake a case of ordinary disease of the eye, in order to recognise such a subject as glaucoma.

Mr. COLLINS seconded the motion.

Dr. BANKS said there was no knowledge more necessary for a general practitioner than that which would enable him to decide upon a person's sanity or insanity. Ignorance on the subject might involve the letting a lunatic go at large, or the deprivation of a sane person's liberty. Two years ago this question was brought before the Council, but was shelved. No better example could be followed than that of the London University, which insisted on three months' clinical study in an asylum for the treatment of mental disease, and the Royal University in Dublin had placed a similar requirement in their curriculum. He therefore intended to move, "That in consideration of the absolute need which exists for the general practitioner of possessing a knowledge of mental disease, it be a recommendation of this Council that in any future revision of the examination rules the subject of mental disease be made a part of the examination."

Dr. HAUGHTON said he was prepared to second such a motion.

A long discussion ensued as to whether or not this could be put in as an amendment. Ultimately it was decided to separate the subjects of mental disease, ophthalmology, and hygiene, and to take a resolution on each.

Dr. TEALE proposed, "That it is desirable that the subject of mental disease should have serious consideration in any revision of curriculum and examination rules."

Dr. BANKS seconded the motion.

Mr. TURNER said he was more than doubtful as to the expediency of calling the attention of the medical authorities by resolutions of the Council to this or any other subject as a special one. It should be taken for granted that all such

subjects came within the scope of the study of medicine, and the good sense and zeal of the examining bodies would lead them to put as much into the examinations as they safely could with reasonable justice to the students.

Sir WM. GULL also thought that the object of the Council should be to secure a wide education for medical men, and it was undesirable to split up the subjects too much.

Dr. HAUGHTON said there were five medical authorities in Ireland, not one of which required any training in a hospital for the insane.

Mr. SIMON asked if it was the opinion of the visitors that, in general, mental diseases were not sufficiently examined in.

Mr. TEALE said he did not think the conclusion was drawn so much from anything that was observed, as from a desire to call attention to these points.

Mr. MACNAMARA said there would be great difficulties in some cases in obtaining facilities for the clinical study of mental diseases, and the Council ought to hesitate before making a recommendation which must afterwards be practically disregarded.

On being put to the vote, the motion was lost by 9 to 5.

Mr. TEALE said that the principle having been established by the Council in its vote with reference to mental diseases, he proposed to withdraw from its consideration the remaining matters referred to in the visitors' conclusions.

Mr. MACNAMARA moved, "That this Council note with approval the suggestion, so far as hygiene is concerned, by Dr. Gairdner and Mr. Stokes."

Mr. COLLINS seconded the motion.

Mr. SIMON moved as an amendment, "That, considering how important it is to all medical practitioners to possess a competent knowledge of hygiene and preventive medicine, the Council takes note of the suggestion of Dr. Gairdner and Mr. Stokes that these subjects ought to form a more independent part than they do of the examinations of all corporations."

Mr. TEALE, in seconding the motion, said, although he agreed with his colleagues Mr. Stokes and Dr. Gairdner that hygiene should be taken into consideration, he was not prepared to concur in their suggestion that the matter should now be pressed upon the different bodies as a subject of examination.

Dr. PETTIGREW thought that it would be undesirable to overburden the student with a new subject which might add another year to his period of study. The proper time to consider the matter would be when the curricula of the different bodies were overhauled, a work which would soon have to be undertaken.

Dr. LYONS suggested the omission of the words, "preventive medicine." He thought the term was very objectionable, as being loose and indefinite. A high authority like the Medical Council ought not to encourage *argot* of that kind.

Mr. SIMON protested against Dr. Lyons's description of the term "preventive medicine," which he said had been current for twenty years, and was perfectly well understood.

Dr. HAUGHTON opposed the motion and the resolution, and described the whole discussion on the question as a mere logomachy. In the University of Dublin a person could not have a certificate in State Medicine unless he was a Doctor in Medicine, or a Graduate in Medicine and Surgery of Dublin, Oxford, or Cambridge; and the subjects included law, engineering, pathology, vital and sanitary statistics, chemistry, meteorology, and medical jurisprudence.

The amendment was then put, and carried by 10 votes against 6. When put as an original motion, Dr. LYONS moved as an amendment the omission of the words "preventive medicine."

Dr. SMITH seconded the amendment, which on being put was negatived.

Mr. SIMON'S amendment having now become the original motion, was then put to the vote and carried.

The Council then resumed, and on the motion of Dr. CHAMBERS, seconded by Dr. PITMAN, a committee was appointed on "Uses and Abuses of Unqualified Assistants."

Dr. HAUGHTON called attention to the fact that the Council had decided to take into consideration not only the report of the visitors, but the remarks of the corporations visited, and suggested that an opportunity should be afforded to the representatives of those bodies on the Council to make any observations they might desire to offer on the report.

Sir WM. GULL thought it would be a waste of time to go over the ground again, and said that every opportunity had been afforded to the representatives to make any remarks upon the report of the visitors.

Dr. SMITH expressed a hope that the Council, for the sake of its own credit, would not refuse an opportunity to the representatives of the bodies visited of making observations on the report of the visitors.

Dr. LYONS moved, "That Order No. 3 (the motion of Dr. Haughton for the consideration of the visitors' report and the remarks of the corporations) be discharged."

The PRESIDENT said that upon that motion the representatives of the bodies visited would have an opportunity of making any remarks upon the visitors' report.

Dr. SMITH called attention to the remark made by the King and Queen's College of Physicians, Ireland, with regard to Part III. of the Report, "That the College have only to remark, with regret, the absence of specimens of the answers given by the candidates to the questions printed with the other examination documents of the College." It appeared from the visitors' preface that they had not printed any of the written answers, not feeling that a commensurate advantage would result from the publication of such a large mass of manuscript, but they had collected the answers, or copies of them, selected from the examinations of each body which had been placed in sealed packets among the archives of the Council. As the answers had not been printed, he thought that the visitors ought to have given the Council some information with regard to them, and especially to have stated whether the answers to which they had referred, as showing a defective education, had been taken into account in passing of the candidates.

Dr. HALDANE referred to the statement of the visitors in the preface of their report, "They have refrained from expressing opinions on the judgment formed by the examiners in passing or rejecting candidates, feeling that such judgments ought to rest solely with those who are responsible for the examination; and moreover, that the standard of any examination cannot be fairly taken from the individual opinion of the examiner, especially when given in the presence of visitors, who have to report critically upon the examinations." If the view of the visitors were correct he thought there was no use in having visitations at all. Their object was to discover the weak points in the examinations of the candidates in order that they might be laid before the Council, and an opportunity be given to the different bodies to correct their errors. There were several errors in the report of the visitors to which he desired to allude. With reference to the question as to whether examiners were elected to examine in special subjects, the visitors said with regard to the Royal College of Physicians, Edinburgh, "to a certain extent—i.e., after elections are assigned to special groups of subjects"—that statement was not correct, the examiners being elected purely for their special knowledge in different subjects. The visitors further stated, "The examination for the double qualification of the Glasgow Faculty pertains also to that of the College of Physicians of Edinburgh, but of this examination the 'primary' witnessed by the visitors was conducted almost exclusively by the Glasgow examiners, those from Edinburgh acting simply *pro formâ*." That also was an inaccurate statement, an equal share being taken by the Edinburgh and Glasgow examiners. The visitors were further in error in stating that at the College of Physicians examination in the double qualification there was no practical examination in chemistry. There were several other points on which the visitors had been led into error, but they had been referred to in the printed remarks of the different bodies.

Dr. WATSON said it was the duty of the visitors to inquire into and report to the Council as to the efficiency of the examination conducted by the several licensing bodies as to the candidates' fitness to obtain their respective qualifications, and he desired to ask the visitors, with reference to the college which he represented (the Royal College of Surgeons of Edinburgh), whether the tests employed by that body were sufficient for that purpose. He failed to find any such answer in their report. They had stated that "the visitors feel bound to notice certain respects in which the examination (of the Royal College of Physicians of Edinburgh) appeared to fall short of the requirements considered necessary by other examining boards that they have inspected." Either they had not the courage of their opinions or they wished to put the matter in such a way that they could not be made responsible for what they said. The visitors had been required to inspect certain bodies in Scotland, but so far as he could ascertain they had not visited the examination of the Royal College of Surgeons, though they had received information as to when it was to take place. He wished to know the meaning of the statement of the visitors that "at the Royal Colleges of Physicians and Surgeons, Edinburgh, the

very questionable practice still prevails of framing at the beginning of the year the questions for the written part of the several series of examinations," and also of the statement that "in the arrangements for each examination the written answers are read and decided upon by the examiners, who may not have been responsible for the questions put, and the *viva voce* part is conducted by different examiners, who may, and often do, ask the same questions as have already been given in writing." With reference to the first statement, he might remark that what the visitors condemned in connexion with the Edinburgh College they praised to the skies in connexion with the London College of Physicians; and in regard to the second statement, he had not been able to find in the report the faintest trace of anything to support the allegation. He might be permitted to mention an absurd error made by the visitors in regard to one of the patients brought under the notice of the candidates. The case was one of hard chancre, but was referred to by the visitors as a case of rupial eruption.

Mr. TEALE said he was the only visitor in the Council, and he did not therefore feel himself in a position to answer the statements that had been made before consulting with his colleagues. He might mention, however, with regard to the question of printing the answers of the candidates, that the cost would be very considerable, and that there were so many difficulties in the way, that the visitors had thought it better to have the papers preserved for the inspection of the Council if required.

Dr. Lyons' motion was then passed, and the Council adjourned.

TUESDAY, JULY 4TH.

The whole of the sitting was occupied by the Council on the consideration of the case of David Beatson Murdoch, in regard to whom a communication had been received from the Medical Alliance Association requesting that his name should be removed from the Medical Register "for disgraceful conduct in the practice of his profession." Mr. Murdoch attended before the Council and was examined by Mr. Farrer, the Council's solicitor, with regard to his employment of unqualified practitioners. The Council deliberated in private for three hours, and when strangers were readmitted the President announced to Mr. Murdoch that the Council judged him to have been guilty of infamous conduct in a professional respect, but did not now direct the Registrar to erase his name from the Register, on the ground that he had undertaken to discontinue the acts complained of.

WEDNESDAY, JULY 5TH.

The first subject taken into consideration was the communication from the South Australian Branch of the British Medical Association with regard to the case of Mr. Hartley Dixon. After hearing the explanation by Mr. Collins of the circumstances under which the Apothecaries' Hall of Ireland granted their licence to Mr. Dixon, the Council resolved: "That it is unnecessary to take further steps in the matter." In the matter of George Stratten Symmons, who had petitioned the Council to restore his name to the Register, a discussion arose as to whether the Council had power to comply with the petition, and the opinion of counsel on the subject was ordered to be taken.

The name of William Story was ordered to be erased from the Register, he having been convicted in October last at the Bedford Assizes and sentenced to penal servitude for five years for setting fire to a house in his possession.

The remainder of the sitting was occupied with the consideration of the Dental Register. The Dental Association had requested the Council to erase from the Register the names of certain persons who, it was alleged, were not legally entitled to call themselves dentists; but the Council decided that they were not prepared to comply with the request of the Association.

THURSDAY, JULY 6TH.

The Council spent some time in considering the report of the Committee of the whole Council on the report of the visitors of examinations. The first seven clauses of the report were adopted with slight alterations; the clause relating to additional time at oral examinations, and the clause respecting hygiene and preventive medicine, were not adopted in the form of positive recommendations, but the attention of the corporations was directed to them, and also to the subject of mental disease. A motion made by Dr. Pitman, to the effect that persons whose names were struck off the Register under Clause 29 of the Medical Act should *ipso facto* forfeit any medical titles which they might hold from any of the medical authorities was, after some discussion, withdrawn. The remainder of the sitting was occupied with the consideration of a motion by Dr. Smith with reference to an application made by the King and Queen's College of Physicians in Ireland respecting one of its licentiates, who, it was stated, had been improperly accused of malpractice by a fellow-practitioner. Complaint was made that the English Branch Council had not made due inquiry into the matter; and it was resolved that it should be referred to that body for further consideration.

A fuller report of Tuesday's, Wednesday's, and Thursday's sittings will appear next week.

"THE OPERATION OF 'SPAYING' IN WOMEN."

To the Editor of THE LANCET.

SIR,—I have read your correspondence with Mr. Lawson Tait with much interest, and, as bearing on the point at issue, may I recount my experience with Mr. Lawson Tait not three months ago? And I may add that Dr. Webb of Wirkworth was cognisant of the position Mr. Tait took, and also witnessed the operation, and saw the patient's ovaries after removal.

Mrs. A——, widow, aged thirty-eight, had suffered continuously for twelve years from the distressing physical and mental symptoms of what one physician termed spinal irritation, another aggravated hysteria, another chronic ovaritis, but all in turn, including myself, failed to do her any good. She was thoroughly wretched, and being a sensible and a Christian woman felt her enforced dependence on her brother and her entire inability to carry on her little shop very deeply. I felt certain the source of all her trouble lay in the ovaries, and with a fully descriptive letter I sent her up to Mr. Tait, with the recommendation that he should watch her condition for a time before forming an opinion. This he did, and wrote to me, "I cannot find anything wrong with the uterus or appendages; you had better come up before I send her back. I cannot operate, as I do not see any justification for doing so." In consequence of this I went to Birmingham, and told Mr. Tait that I felt sure the removal of the appendages was the only thing that would benefit her. He still refused to operate unless I would take the entire responsibility of the procedure, which, after a consultation with her friends and herself, I agreed to do. The operation was performed the following morning, with the result of finding the tubes impermeable and bulging with puriform fluid and the ovaries partially filled with inspissated pus. The patient has recovered well from the operation, though slowly; but notwithstanding the second recurrence of her menstrual period since the operation, she expresses herself as feeling less excitable and mentally wretched, and I have every hope that when the uterine function wholly ceases, which it probably will in a few months, she will improve more rapidly and decidedly.

Now, in fairness to Mr. Lawson Tait, you must admit that, had he such a proclivity for "spaying" as you suggest, he would not have refused to operate in the case I have described. Nothing could be more defined or decided than the position he took.

As an interesting incident in relation to these prolonged, distressing, and obscure cases, I well remember some years ago a farmer's wife suffering from a set of symptoms very similar to those of Mrs. A——. She was ill several years, and went from one doctor to another, and at last died under forty years of age. I remember distinctly asking the gentleman under whose care she was at the last what was the matter with her. He replied, "We had a post-mortem, and found her ovaries full of cheese-like pus, nothing else."

I am, Sir, faithfully yours,

Milford, Hants, July 3rd, 1882. DOUGLAS W. ESHELBY.

*** We would call attention to the fact that Mr. Tait removed the ovaries of a patient of whom he said, "I cannot find anything wrong with the uterus or appendages..... I cannot operate, as I do not see any justification for doing so." And, to quote Dr. Eshelby, "He still refused to operate unless I would take the entire responsibility of the procedure."—ED. L.

THE LANCET.

LONDON: SATURDAY, JULY 8, 1882.

THE more the Report of the Royal Commission is studied, the more will it be valued as a contribution to sound legislation. It not only recommends the unification of the licensing authority in each division of the kingdom, and the representation of the individual authorities of each division in a Divisional Board, but also proposes a very material change in the constitution of the Medical Council. Our readers are aware that the present Council consists of twenty-two members and the President chosen by the Council from without. The twenty-two members represent respectively the medical authorities and the Crown. Each medical authority, excepting the four Scottish universities, which have only two representatives among them, sends one representative to the Council, and there are in it six gentlemen representing the Crown. The Royal Commissioners propose to reduce the number of the Council from twenty-two to eighteen. It is but logical, when combining the licensing authorities into one, to do away with their individual representation in the General Medical Council. Accordingly, the Commissioners propose that the Divisional Boards in which every medical authority, or every surviving medical authority, is to be represented, shall choose eight of the members of the new Medical Council to represent them—that is to say, four to be chosen by the English Divisional Board, and two by the Scotch and Irish Divisional Boards respectively. In this way, instead of having seventeen representatives in the Council, the medical authorities will have only eight. The Crown will have six, as at present, and the profession is to have four. The profession, and the public too, will cordially appreciate the view of the Commissioners, very boldly and earnestly expressed, that whilst the Council exists mainly in the interest of the public, its constitution is a matter of vital interest to the whole medical profession. The paragraph of the Report on this subject is so outspoken, and destined, we trust, to have such important consequences, that we give it in full:—

"The direct representation of the profession upon the Medical Council is a question which has been so long and fully argued that we feel it unnecessary to enter upon it further than for the purpose of expressing our conclusion. While we insist that the reason of the existence of the Medical Council is the interest of the public, we cannot but recognise the vital interest of the whole medical profession in the constitution of that body. It seems to us highly important that the profession should have full and complete confidence in the Council, and, seeing that the governing bodies of the medical corporations which now elect members of the Council can hardly be said to represent the great majority of practitioners, we think it advisable to give the general practitioner an effective voice in the body which will be the principal authority of the medical profession. We see no reason to suppose that the members elected by direct representation will be less eminent than those nominated either by the Crown or the divisional boards."

Such a view of the relation between the Medical Council and the medical profession must commend itself to all medical men who have not learned to look on the profession from the eminence of a corporation like the Medical Council, which, deriving its chief importance from the profession, whose education and registration it supervises, seems to regard its members with very scant respect. It is pitiable to see a man like Mr. SIMON disparage and, as we think, seriously misrepresent—of course unintentionally—the nature of the demand for the representation of the profession in the Council, and to see him joined by Professor TURNER. Their position of Commissioners might have deterred them from taking the action of witnesses and reproducing old and ten-times-answered arguments. When the evidence has been published, the Government and Parliament will have an opportunity of judging how far Mr. SIMON'S representations of the motives and objects of those demanding the representation of the profession, as distinguished from its corporations, is justified, and we very much mistake if they do not come to the conclusion that the Medical Council is a very self-complacent body, and that Mr. SIMON and Professor TURNER have the complacency and the conservatism of the Council in a very pronounced form. The Government will not fail to notice that the report in favour of direct representation has all the support that Sir WILLIAM JENNER can give it, who is in far more direct contact with medical practitioners and with the public than either the learned anatomical professor or the somewhat unsympathetic ex-medical officer of the Privy Council. The Royal Commissioners not only intend the future Council to enjoy the confidence of the profession, but of the public. It is not to be a weak "recommending" body like the present. But is to have "supreme authority" and "larger powers" than it has hitherto possessed. It will have power to vary or annul any resolution of a Divisional Board, and it will be its duty to ensure as far as possible equality in the curriculum and examination between the three Divisional Boards.

The report of a Commission that has so grasped the great questions of medical reform, and that has besides recommended the entrustment of prosecutions under the Medical Act to the Public Prosecutor is not to be lightly esteemed. Despite the conservatism of Mr. HUXLEY, and of Mr. SIMON and Professor TURNER, changes like those suggested by the Commissioners must take place. Mr. MUNDELLA will not be deterred, with the support of Lord CAMPERDOWN, Mr. COGAN, Sir GEORGE JESSEL, Sir WILLIAM JENNER, and Mr. MCDONNELL, from proposing changes which are mainly resisted by members of existing bodies. Never yet have bodies been reformed from within. Never yet have their members seen the necessity of changes till they were accomplished against their will. The time has come now to act independently. Government cannot evade the duty, if it would, of teaching the medical corporations that they exist for the public, and that they cannot longer be permitted to compete in lowering the standard of medical education.

IT was generally understood that the *magnum opus* of the Medical Council at its recent meeting was to be the Report of the Visitors, and the discussion on it. There were sub-

stantial reasons for thinking so. The Visitors were men of the highest capacity for the work. They visited, or had a commission to visit, all the corporations of each division of the kingdom—those examining bodies, it will be noticed, that are reputed to be so different in their standard, and yet in whose substantial uniformity of standard the public and the profession have so great an interest. The President has told us they were not to be hindered by economical considerations, and were to avail themselves freely of any clerical assistance. The financial facts connected with the Report justify the expectation with which it and the discussion of it have been regarded. As we said last week, the Report itself has taken about £1500 out of the funds of the Council. The discussion of it has extended over four or five days, or parts of days, of the session of the Council. We shall not be far wrong in supposing that, as the Report itself cost £1500, the discussion of it will cost £500 or £600 more—in all over £2000. Will anyone say, regarding either the Report or the discussion, that we have value received? We are tempted to say that if three advanced students had gone to visit the examinations and to report, we should have had a more practical report than the one we have got. The discussion in the Council took the form of a debate on thirteen abstract conclusions of the Visitors. On one or two of these some really pertinent and important speeches were made: notably that of Professor TURNER on the impracticability of the conclusion of the Visitors that every candidate should be required to dissect with the present limited supply for anatomical purposes; and that of Mr. MARSHALL on the conclusion of the Visitors against a sharp limitation of time in examining candidates. In the case of one or two of the conclusions of the Visitors, the Council, after discussing them for a length of time, discovered or remembered that they were already part of their published Recommendations. The Report points out, in the case of most of the bodies, Recommendations of the Council or of previous Visitors which have not been adopted.

We must confess to a feeling of considerable disappointment with the Report, or at least with the inadequate way in which the comparative efficiency of the examinations of the several corporations has been represented to the Council. The public had a right to expect to be plainly informed whether the often-alleged differences of standard between the examinations in London, Edinburgh, and Dublin, really exist. It may be true that they are implied or insinuated in the reports. We think that careful readers, or those who know how much is meant by the euphemistic phrases of the Council and its Visitors, will see that very grave differences of knowledge are accepted as satisfactory by different bodies which ought to do substantially the same work. But this has not been made manifest. Mr. MARSHALL elicited the curious fact, already brought out by Dr. GLOVER before the Select Committee of the House of Commons, that the College of Surgeons of England rejects a far smaller percentage of candidates than the Scotch Corporations. But nobody believes that the standard of examination is higher in the conjoint examinations of the Scottish corporations than in the examination for the membership of the English College. This great and costly visitation of the corporations in all divisions of the kingdom can only be justified by a full and explicit statement by the Visitors, as Dr. HERON WATSON very properly said, of their opinion of the sufficiency of the examinations. It is only due to Dr. WATSON, as the representative of the Edinburgh College of Surgeons, to say that he challenged Mr. TEALE to express such an opinion as regards the examinations of his own College; but Mr. TEALE declined, without consultation of his colleagues, to do so. Meantime the Edinburgh corporations suffer, notwithstanding a very smart retort upon the Visitors, under such disparaging remarks as these: that in the opinion of the Visitors the major part of their anatomical examination consists "of questions of too elementary a character," and that eight examiners form a judgment of ninety-six papers in Anatomy, Physiology, and Chemistry in less than an hour.

The euphemistic style of the Visitors reaches its climax in the Report on the Examination of the Apothecaries' Hall of Ireland. We commend it as a study in this kind of writing.

AN almost untouched field has been explored by NOTHNAGEL in his latest study of intestinal function. Of the effect of various chemical substances on unstriated muscle we know almost nothing, and this has been the subject of his investigations, the results of which are of great interest as well as of novelty. The investigations were made on etherised rabbits, the open abdomen being immersed in a warm neutral solution, and the substance to be tried was gently placed, in a solid form, on the external surface of the bowel. It was previously ascertained that the mechanical irritation thus caused was too slight to produce any effect on the muscular tissue.

The first important fact ascertained was that there is a fundamental difference in the action of potash and soda salts, and that this difference depends on the alkali, being irrespective of the combination in which the alkali happens to be. However similar, for instance, in general action is bromide of potassium to bromide of sodium, there is a marked contrast in their effect on the intestine, due to the basic alkali. If a salt of potash is placed on any part of the bowel, large or small (the cæcum for the present being excluded), a strong muscular contraction results, which remains limited to the part touched, or merely extends around the intestine in an annular form. On the other hand, if a soda salt is employed, a contraction is produced which does not remain limited to the spot, but extends from it for several centimetres, and always upwards, towards the pylorus. The result is uniform in cats as well as in rabbits, and there is no reason to suppose that it is not true also for the human intestine. The fact may sometimes be of use to operators. If, for instance, a small piece of the bowel is exposed and it is desired to know which is the upper and which is the lower portion, all that is necessary is to place upon it a fragment of common salt—a perfectly harmless proceeding—and a contraction will occur, and will pass invariably upwards.

The contraction produced by potash, although so limited, is very energetic, completely emptying the bowel at the spot, and the local contracted part may be concealed, being overlapped by the adjacent uncontracted part, so abruptly limited is the contraction. The local contraction does not seem to set up actual peristaltic action, any slight movement of this character which is observed being apparently due to the distension of the bowel above by the

interference with movement of the contents. In order to produce the contraction, the potash salt need not remain in contact more than from half a second to one second, and the interval between the commencement of contact and of contraction is from one-eighth to six-eighths of a second. The contraction always begins at the spot touched. On the other hand, in the case of the soda salts, the contraction sometimes begins at the spot touched, but very often a few millimetres higher up, the spot actually touched remaining uncontracted, a phenomenon never observed with potash salts. The contraction then extends upwards as already mentioned, until six or eight centimetres of the intestine may be reduced to a pale empty cord. The constriction lasts from five to thirty seconds, and then goes off gradually with some slightly irregular peristaltic waves. The duration and intensity of the effect seem to depend to some extent on the degree of irritability. Below the point of application the bowel is for the most part still. The application of the soda salt to the cæcum has almost no effect. A very short application of a soda salt to any part, for less than one second, often has no result. The application has usually to last for two or three seconds. The latent period before contraction begins is from two to ten seconds. The contraction does not last so long as that which is produced by the potash salt. Experiments on cats yielded similar results, the only difference observed depending apparently on the greater development of muscular tissue in the intestine of the cat.

Observations on the action of other substances showed that only ammonium compounds produce the same effect as the soda salts—i.e., an ascending contraction. All other substances examined have a different effect. Common alum causes a slow and comparatively feeble contraction, remaining limited to the point to which the stimulation was applied. The effect of magnesic chloride and sulphate is uncertain; sometimes they cause a local contraction, sometimes none at all. Chloride of calcium produces a somewhat stronger contraction than chloride of magnesium, but sulphate of copper, chloride of silver, and acetate of lead, produce only a local contraction, which comes on slowly and lasts a long time, often several minutes. Sugar and urea have no effect. It is very remarkable that the action of the sulphates of potash, soda, and magnesia, when applied to the outside of the bowel, should be so widely different, although each produces the same effect when taken internally.

In considering the mode in which the effects were produced, only the effects of the compounds of potash and soda were considered. The first question was whether the contractions were to be regarded as the direct result of the stimulation of the muscular fibres, or as the effect of the excitation of any nervous elements. The local character of the contraction produced by potash makes it probable that the action is the result of the local stimulation of the muscular fibres. NOTHNAGEL believes that the soda salts exert an influence, although feebly, on the muscular fibres, but it is very difficult to decide whether the special ascending contraction of the soda salts is or is not due to a nervous mechanism. That it is, is suggested by the striking difference from the contraction produced by the potash salts. Experiments showed, however, that the contraction occurs even when the nerves of the mesentery have been divided, and the only nervous mechanism which could co-operate in producing the contraction is the ganglionic arrangement in the wall of the bowel itself. That it does depend on this mechanism is probable from the considerations, first, that the contraction begins not at, but a little above, the point touched; secondly, the longer latent interval; and thirdly, the fact that after the post-mortem peristaltic action has ceased, potash salts still cause the local contraction, and a similar contraction can sometimes be caused by soda, but never the characteristic ascending contraction.

A large number of experiments were made on other organs which are furnished with involuntary muscular fibres, under the same conditions. In the bladder the soda salts caused only a feeble and local contraction, while the potash salts had a much more energetic effect, producing an alteration in the shape of the bladder and not unfrequently the expulsion of some of its contents. Applied to the stomach both salts cause only a local contraction, which is sometimes absent when the soda salt is used. Neither caused any appearance of peristaltic waves. These results show that the potash salt has a more energetic local action on the bladder and stomach than the soda salt, and agree with effect on the intestine if the ascending contraction, observed in the latter, is regarded as produced through the nervous mechanism, and to this view they therefore give indirect support. How this local stimulation is produced is, however, obscure. That it is not due to the simple withdrawal of water is evident from the trifling effect of the chlorides of calcium and magnesium. Still more surprising and mysterious, however, is the remarkable fact that the contraction produced (probably through the nervous structures) by the soda salts should pass invariably upwards. The fact is one which cannot be correlated with any other known facts in the physiology of the intestine, and it affords a glimpse into a class of phenomena of which at present we apparently know nothing.

SOME few weeks ago we called attention to the serious condition of the colonial medical service in British Guiana, which had led to strong expressions of opinion in the local press. Since that date we have received further information, which not only confirms that on which we previously acted, but has furnished us with some of the reasons for the disastrous state of the service. Among these we may mention the following The medical officers are under the control of the Governor of the colony, and are liable to instant dismissal by him without any right of appeal or protest, and in this respect they are worse off than any other civil officer of the Governor. The statistics to which we have previously referred show that Governors have hitherto not been slack in exercising this "privilege." But a still greater source of difficulty is the fact that the medical officers are allowed no independence of action, and are continually hampered in the discharge of their duties by managers of estates and others, who at times regard them as beneath all consideration. Even in the hospitals to which they are attached, and for the proper and successful conduct of which they are responsible, they are not their own masters, but are subjected to constant interference and grave annoyance by lay authorities, managers, and so forth. The climate of Demerara greatly taxes the health and endurance of Europeans, and those who are actively engaged

with such anxious and exhausting duties as those discharged by the colonial medical officers need opportunities of visiting more temperate and healthy climates at short intervals; but even this meagre measure of justice is withheld or given tardily, grudgingly, and with ill grace. The leave of absence should be a matter of right after but a short service; but the present arrangement is that none is due until after five years, and it may then be postponed or withheld by the head of the medical department if his personal feelings so incline him; and even when the leave of absence is at last granted, its recipient has to forego half his pay. Again there is no security against change, and the medical officers of the service are liable to be sent from one part of the colony to another at the shortest notice, and no allowance is made for the serious expense and inconvenience to which they are exposed. Happily the public press is interesting itself in the case of the medical men, and there is therefore some hope that the complaints may reach official ears. But it is evident that the whole subject demands a full and searching inquiry, and that the medical service of the colony must be put on a better basis. It needs a strong man at its head, commanding the respect of all parties; and the medical officers should be freed from all petty annoyances, frequent removals, and the interference of laymen in their own special sphere; they should also have leave of absence assured to them after three years' service. While the service is in its present disorganised state, we cannot recommend anyone who values his independence of action, or has any wish to uphold the dignity of his profession, to enter this colonial service. A "strike" of candidates is probably the only form of pressure that will tell upon the authorities, who, by their indifference to the complaints and representations of those who have entered their service, seem to show that, so long as there are men to fill the vacancies as they arise, they have no interest in the welfare of their servants. Unless some distinct improvement is soon accomplished, the colonial authorities will, however, find themselves in an unenviable predicament.

Annotations.

"Ne quid nimis."

THE MEDICAL COUNCIL AND SHAM DISPENSARIES.

THE Medical Council has woke up at the eleventh hour. It perceives thus late that it has some duties in connexion with the moralities of medical practice. We shall not determine who is to blame or who to be praised in connexion with this late display of usefulness on the part of the Council, whether the Medical Alliance Association (which has displayed a creditable amount of energy and public spirit in exposing the working of so-called provident dispensaries in the east of London), or Mr. H. Samuelson, who put a question on Mr. Murdoch's case in the House, or the Home Secretary who answered the question, and in doing so referred Mr. Samuelson to the Medical Council, which, he said, has power to act, by the 21st & 22nd Victoria, in such cases. The Home Secretary further advised Mr. Samuelson to ask the Medical Council to put the Act in force against registered practitioners acting as in this case. As the Medical Council has generally been deaf to the voice of the profession when asked to vindicate professional morality, most people will be apt now to think that, apart from the magic influence of the words of the Home Secretary, we should have heard nothing in the Council of Mr. Murdoch and his now victorious assistant, "the black doctor," *alias* Colonel Griffin, or "Governaur Hamilton Griffin," who, though entirely without medical qualification, played such a large part in the treatment of cases supposed to be under the care of Mr. Murdoch, and who was also Mr. Murdoch's landlord. Our readers are aware of the main facts of the two cases which were fully brought out at two inquests before Sir John Humphreys. There were really three cases: Naomi Chatfield, Martha Elizabeth Bailey Chatfield, and Henry Arthur Parker. Griffin had been in attendance on Naomi. The parents and friends thought him a qualified doctor, for whom they "had sent to the provident dispensary." When Naomi was dying "the Colonel" sent for Mr. Murdoch. He came, and the child died as he came in. The certificate was in Mr. Murdoch's writing. On this occasion Mr. Murdoch saw Martha Chatfield, but never afterwards. When she died a certificate of death was handed to the parents by Griffin with Mr. Murdoch's name attached. Mr. Murdoch alleges this was a forgery. The facts of the death of the third child, Henry Arthur Parker, are that twice out of thrice it was seen by "the dark gentleman," once by Mr. Murdoch. A certificate was given, which Mr. Murdoch said he had not authorised.

There is much reason to believe that there are too many practitioners in London who, like Mr. Murdoch, have three or four dispensaries, at considerable distances from each other and from the residence of the principal, worked by unqualified assistants whose names even are unknown to the people whom they attend, who take them for the principal whose name covers and protects the whole arrangement. The gentlemen who are in Mr. Murdoch's position will perhaps take warning by what has happened. The Medical Council have stopped short of erasing Mr. Murdoch's name from the Register. But it may be assumed that, after this warning and the sharp call of the Council to duty by the Home Secretary, they will not deal so tenderly with any similar case that may come before them.

THE CHAIR OF SURGERY IN EDINBURGH.

THE vacant Chair of Surgery in the University of Edinburgh will, we understand, be filled up on July 17th. The appointment is in the hands of the Curators, three of whom — viz., Sir Alexander Grant, Mr. Campbell Swinton, and the Hon. Lord Kinnear, — are elected by the University, four of whom—viz., the Right Hon. Sir T. I. Boyd, Lord Provost, Mr. John Boyd, Mr. Duncan McLaren, and Mr. James Colston,—are elected by the Town Council of Edinburgh. The candidates are Mr. Joseph Bell, Mr. Chiene, Dr. John Duncan, and Dr. P. Heron Watson.

Mr. Joseph Bell graduated as M.D. Edin. in 1859. After acting as resident surgeon under Professor Syme, and resident physician under Professor Gairdner in the Edinburgh Royal Infirmary, he acted for two years as demonstrator of anatomy under Professor Goodsir. For seventeen years he has been a member of the surgical staff of the Royal Infirmary, and is now senior acting surgeon. In the year 1863 he commenced to lecture on surgery, and continued to give a systematic course in the Extra-Mural School until 1878, when he became senior surgeon. He then, in accordance with custom, gave up his systematic course to conduct a qualifying course of Clinical Surgery. Mr. Bell is the author of "A Manual of the Operations of Surgery," and of numerous papers in the *Edinburgh Medical Journal*, of which he is the editor. He is engaged in extensive practice, both medical and surgical.

Mr. Chiene graduated as M.D. Edin. in 1865. He acted

for twelve months as house-surgeon to Mr. Syme, and acted for four years as demonstrator of Anatomy under Professors Goodsir and Turner. Since 1875 he has held the office of additional examiner in anatomy in the University of Edinburgh. He is one of the acting surgeons to the Royal Infirmary, Edinburgh. Since 1870 he has given a systematic course of lectures on Surgery in the Extra-Academical School, the average attendance at which has been 107 students. He is the author of an illustrated work on Surgical Anatomy, of a series of Lectures on Surgery, which have been published in the *American Practitioner*, and of numerous papers in the various medical and scientific journals. From an early period of his career he has devoted himself to pure surgery.

Dr. John Duncan graduated as M.A. Edin. in 1858 and M.D. Edin. in 1862. After acting for a year and a half as house-surgeon to Prof. Syme he spent two years in the continental schools. He then succeeded to a considerable portion of his father's practice, which soon became one of the largest in Edinburgh. "Finding, however, that, although an invaluable training, its increase began to interfere with surgical work, and being relieved from the necessity of pursuing it, he abandoned general practice; and for many years he has confined himself strictly to surgery." In 1865 he began to teach as demonstrator of anatomy under Dr. Handyside; and he then initiated a course of surgical anatomy and operative surgery—a course which he subsequently conducted at the request of Professor Goodsir in the University. In the year 1871 he commenced lecturing on systematic surgery in the Extra-Academical Medical School. His classes have annually increased in numbers; and last winter he enrolled one hundred and forty students. He is one of the acting surgeons to the Royal Infirmary, Edinburgh; is the author of a series of Essays on the Application of Electricity in Surgery, and of numerous other papers on surgical subjects.

Dr. P. Heron Watson graduated as M.D. Edin. in 1853. After acting as house-surgeon to the Edinburgh Royal Infirmary he became assistant-surgeon in the Royal Artillery, and was for some time engaged in active service. Soon after his return to Edinburgh he was appointed to the staff of the Royal Infirmary, and commenced to lecture on systematic surgery. He is an ex-President of the Royal College of Surgeons of Edinburgh, and was recently appointed the representative of the College in the General Medical Council in the room of the late Professor Spence. Dr. Watson is surgeon to the Royal Infirmary and to Chalmers Hospital, Edinburgh, and for many years has enjoyed one of the largest practices, both medical and surgical, in Edinburgh. He is the author of "Excision of the Knee-Joint in Cases of Disease or Accident," "The Modern Pathology and Treatment of Venereal Disease," and numerous papers on surgical pathology and therapeutics.

We have reason to believe that Dr. William Macewen is not a candidate for the Chair of Surgery in the Edinburgh University.

MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

PROFESSOR FLOWER'S annual report of the Museum of the Royal College of Surgeons is ready. Sir James Paget, with Dr. Goodhart and Mr. Duncan, have been working on the new catalogue of the Pathological Collection. The whole of the M.S., including revised descriptions of nearly 5000 specimens, of which 1500 have been added since the publication of the last edition, is completed. The first volume, containing a description of the preparations illustrating General Pathology, will be ready for distribution in a few weeks. We have also to congratulate the Council on the nearly finished catalogue (Part 2) of the Osteological Collection. Some of the finest additions to this collection—as the great elephant seal of the South Seas, and its allied species, the sea bear—have already been noticed in THE LANCET. The collection of human skeletons and skulls continues to receive large additions—notably a series of upwards of 100 skulls from Egypt, mostly those of mummies, presented by Captain R. C. Burton. Professor Flower regrets that it is not possible to ascertain the precise date of any of these skulls, yet many valuable indications may be gained from them relating to the general physical characters of the people to whom they belonged. The appeal made a few years ago by Sir Joseph Fayrer, F.R.C.S., to the medical officers of the army serving in India, to collect skeletons and crania of various Oriental races, has been liberally responded to, especially by Surgeon-Major Mackenzie, M.D., of the Campbell Hospital, Calcutta, who has forwarded eight perfect specimens to the Museum; Deputy Surgeon-General John Shortt, M.D., of Madras; Surgeon-Major G. Bidie, M.B., Superintendent of the Government Central Museum, Madras; Mr. Ondaatje, Colonial Surgeon, Ceylon; and Mr. R. S. Nariman, Civil Surgeon, Dohad. The Collection of Surgical Instruments, in which the late Sir William Fergusson took such a warm interest, has been enriched by Mr. Charles Hawkins, another ex-member of the Council, who has presented a series of about twenty-four instruments, which formerly belonged to the late Sir Benjamin Brodie, exhibiting progressive modifications in the methods of removing calculi from the bladder without the use of the knife. Dr. Jamieson, of Shanghai, has also presented some curious trusses of native manufacture. It is stated that as many as 11,284 visitors signed the hall porter's book during the past year, against 3669 in 1861.

THE TREATMENT OF FRACTURE OF THE SKULL WITH DEPRESSION.

IT is not improbable that in the operative treatment of injuries and diseases of the skull some of the most important advances in surgery in the immediate future will be made. We now operate freely on deformed bones and diseased joints operations on the abdominal viscera are now undertaken which but a few years ago were looked upon as altogether beyond the bounds of the practicable; and the therapeutic advances that have made these procedures so successful may be equally well applied to the surgery of the head. But accuracy in diagnosis is an essential condition of successful treatment, and as the recent discoveries of the special function of individual portions of the surface of the brain are rendering exact diagnosis of superficial brain lesions possible, it is not rash to foretell that surgery will keep pace with the science of diagnosis. The surgical treatment of depressed fracture of the skull has been formulated into the proposition that when accompanied with evidence of compression of the brain an operation to remove the depressed bone should be undertaken at once. This is the general if not the universal practice among British surgeons. But latterly some inclination to extend the use of the trephine has shown itself in more than one quarter. The reasons for this extension are that the operation, when properly conducted, and especially when carried out with due precautions against septic infection of the wound, is not a very dangerous one, and if we may argue from Dr. Yeo's experiments on monkeys to man, we may say that the use of the trephine adds very little, if at all, to the gravity of a case. Again, surgeons from time to time see cases where the results of a post-mortem examination show that a life might have been saved by a timely use of the trephine. In Paris the doctrine was first promulgated that the trephine ought to be used in *all* cases of *compound* fracture of the

vault of the skull, whether actual depression of bone, or symptoms of compression, be present or not. And lately in America it has been urged by Dr. Gunn that in *all* cases of depressed fracture, with or without symptoms of compression, and whether simple or compound, the depressed bone should be elevated. While we fully believe that the operation of trephining has fallen into undeserved disrepute, and might with advantage be resorted to more freely, we think that Dr. Gunn's proposal is unsound and dangerous. It is a familiar fact to any surgeon of large experience that patients who have received depressed fractures go through life quite unaffected by them, and while such is the case no appeal to cases in which the course of events is different ought to induce a surgeon to submit all cases alike to operation. For there is not conclusive evidence before us that the evil effects of depressed fractures, which often arise, may, without giving rise to symptoms, advance to such a degree as to render trephining useless. There appears, then, to be no sufficient ground for formulating the rule of practice otherwise than as at present, but it should be more liberally interpreted, close watch for symptoms of local mischief should be kept up, and the trephine resorted to as soon as any such symptoms declared themselves, even though slight, and with strong hopes of a successful issue, instead of, as at present, looking upon it as a *dernier ressort*, and using it timidly and with gloomy foreboding.

STERILITY.

THIS subject has been again and again brought before our notice of late in various forms: in some cases as "specialities" in the shape of instruments, said to be convenient and portable, for the removal of our heading; in others as strictures, not only in various parts of the genital canal, but on the whole subject. The menstruum of sterility itself is, curiously enough, an instance of a figure known in rhetoric as "oxymoron," for, contrary to its name, it produces (if we are rightly informed) a micrococcus, which increases rapidly when once introduced, is about the size of a shilling, yellow in colour, marked on one side with the figure of St. George slaying the dragon, and on the other with the head of our most gracious Queen. Like the red blood-corpuscles, it is accompanied (in all but aristocratic circles) with a similar body, but of equal size and shape and nearly identical marking, weighing rather less, and, unlike the white blood-cells, in exactly equal proportions to the yellow body; both have a tendency to form rouleaux. In the menstruum we have mentioned, their excessive multiplication is liable to be followed (according to the powers of resistance of the patient) by rapid loss of health, both physical and moral, even though the micrococci are removed as rapidly as they are produced. Their resistance to reagents is remarkable; they are rapidly soluble only in aqua regia, though the white variety slowly forms a black sulphide. Thus much about the micrococci. We must now notice a somewhat new departure with regard to the question of sterility—a departure which, like other disturbances, has been previously seen on the other side of the Atlantic, and which has at least a claim to originality. This consists in the proposal to endeavour to cure sterility not only in sterile but in fertile women—an object to be achieved by a careful local supervision in the intervals of pregnancy, with a view to eliminating deviations from a "normal" standard, such deviations including retroversion, fissure of the cervix, patulous os, glairy discharge (i.e., the normal cervical secretion). These conditions, we are told, we "must" remove. We are not able to state how many healthy women with the above "abnormal" conditions would probably, and in our opinion rightly, decline to be treated at all (for it must be remembered that these conditions are to be *searched for* by the physician, not merely discovered while investigating complaints); but we will enumerate a few of the things we "may" do. These include applications of nitric acid to the canal of the cervix, trachelorraphy, pessaries (of course), posture (not omitting the Turkish attitude of prayer), garment-suspenders, &c. What with the micrococci, the treatment that *must* and the treatment that *may* be carried out, there is reason to fear that some of the bolder female spirits will heartily wish they had been born with empty pelves, or at least to rectify the mistake as soon as possible, and to get rid of organs which, it would seem, are to leave their unfortunate owners never free from investigation.

"DRUNK OR DYING."

FROM the report of a recent inquest on a case in which the police had failed to discriminate between apoplexy and drunkenness, it appears that a medical witness remarked, "It was a mistake police officers often made; but the local police had been attending the Ambulance lectures, and, he thought, would have been able to distinguish the two." This would seem to imply that at least one member of the profession expects more than it is reasonable to expect from the modicum of information it is possible to acquire in the course of a system of instruction which is rather well-intended than well-advised. If the teaching given by the Ambulance authorities were more modest, it would be incomparably more useful. It is not mere surplusage to talk to policemen about the special symptoms of drunkenness as distinguished from apoplexy. Even trained medical men have often great difficulty in recognising the difference between the two states, and, as we know, mistakes sometimes occur even in hospitals. The police should be instructed to treat *all* insensible or drowsy persons as though they were suffering from illness, and to send at once for medical aid. If the case prove to be one of simple drunkenness, the fee for attendance could be added to the fine imposed; if not, it would be only too gladly paid by the friends of the patient. It is inevitable that mistakes should occur if the police are permitted to attempt a diagnosis. We should be glad to hear that the whole system of instruction by "lectures" and "examinations" given under the auspices of the Ambulance Association had been revised, and that instead of the bewildering, because quasi-technical, knowledge it is now desired to inculcate a few simple principles were laid down, with sole reference to the prevention of accidents, until proper aid can be obtained. It is in no spirit of jealousy that we make these remarks. The Ambulance Association might do excellent work, but it has overstepped its province and is ill-advised. This is manifest from the questions set in the "examination papers."

COUNTRY RESIDENCE FOR OUR CITY POOR.

THERE is no agency more widely applicable in the treatment of disease among the poor than change of air or country residence. Often the physician feels the immense advantage to the convalescent which, in all likelihood, would follow a month's sojourn at the seaside, or in some quiet corner where pure air could be inhaled and good milk freely drunk. It appears akin to sarcasm, however, to advise the father or mother who earns but a few shillings a week to leave their charge and go health-seeking, while the others may starve; and at present it is only the few fortunate recipients of the charitable card who can obtain that relaxation so much needed. Now that the population of the towns is so aggregated and the rural districts so thinly occupied, difficulty is found in obtaining labourers for the ingathering of the crops; and this has been specially felt during the past few years, when the harvests have been protracted by unsuitable weather. High wages were vainly offered, and

severe losses were occasioned through the scarcity of labour. Without doubt many thousands of our city population could find employment of a remunerative kind, cheap lodgings, and wholesome food during the approaching harvest, and a month's labour of this kind would give a return in the shape of robust health, enough to carry their fragile bodies through the hardships of the winter. When mills are running short time and complaints of dull trade are heard on every side, advantage may, without indirect loss, be taken of this means of obtaining the best results of country residence now open only to the rich. Employers might allow relays of their workmen to enjoy these advantages for suitable periods of time, and farmers would be much relieved by such a supply of labour, perhaps at wages less than regular farm labourers can claim.

CARBOLISED NERVE LIGATURES.

NERVES were used as ligatures in experiments made at the early part of the present century, but were never introduced into practice. In the active search for the best material for ligatures that is now being prosecuted, the applicability of nerves has again been put to the test. Dr. John A. Wyeth of New York records in the Archives of Medicine for June a case of malignant tumour of the upper jaw, which spread into the adjacent sinuses and cavities and was accompanied by dangerous hæmorrhage, in which he ligatured the common carotid artery on the same side, using the sciatic nerve of a calf. The nerve was the size of the median or ulnar nerve in the arm, and was soaked in an aqueous solution of carbolic acid, 5 per cent., for twenty-four hours before use. The nerve thus prepared was "very strong by virtue of its neurilemma, and soft and cushioned, since its cylinders of neurilemma were filled with the white substance of Schwann." To prevent any possibibility of slipping the two ends of the knot were tied together with catgut, and the ends were then cut off short. The woman recovered from the operation and lived for seven months. The carotid artery was found to be "completely occluded and its continuity unbroken. There was a depressed ring, scarcely appreciable, at the point where the ligature had constricted it," and the ligature had completely disappeared. Dr. Wyeth has also used a nerve ligature to tie the carotids of a horse and of a large greyhound, and has examined the parts after five weeks. The carotid of the dog was occluded. "The ligature had slipped from its place on the horse's artery and it was permeable. There was a roughened surface at the point of deligation, due to proliferation of the endothelia." As the animal was plunging violently at the time of the operation, Dr. Wyeth is doubtful if the operation was satisfactorily performed. Both ligatures were completely absorbed.

THE DUKE OF YORK'S SCHOOL.

THE revelations of grievous mismanagement in the Greenwich Hospital School, to which we called attention in our issue of the 17th ult., naturally suggest the question whether such a state of things exists also in the analogous army institution—the Royal Military Asylum at Chelsea. We regret to say, from inquiries we have made, that there are strong grounds for believing that a similar ill-advised course of money-saving has been adopted there of late years, and with corresponding results in bringing the health and physical condition of the boys to a low ebb. We understand that a committee has been carrying on an investigation into the system adopted at the asylum and its effects, educationally and physically, on the boys. We shall look with much interest for its report, which, we presume, will be presented to Parliament, as was the case with that of the Greenwich Committee.

MONTROSE ROYAL LUNATIC ASYLUM, INFIRMARY, AND DISPENSARY.

THE centenary of the opening of this institution was celebrated last week. It would appear that this was the first establishment provided for the care of the insane in Scotland, and originated in the thoughtful care of Mr. Carnegie of Charlton, in the neighbourhood. In 1839 the Infirmary was separated from the Asylum, and in 1859 the splendid building at Sunnyside—costing up till now £50,000—was provided for the insane patients. Dr. W. A. F. Browne (late Commissioner in Lunacy) was the first resident medical superintendent, was appointed in 1834, and happily still survives. It was not till 1800 that the next asylum was opened at Aberdeen, and before 1839 other five had been added. Many improvements have been carried out since Dr. Howden was appointed superintendent twenty-five years ago, and the addition of a wing four storeys in height is just now finished. The sanitary arrangements are very complete. Each watercloset is directly connected with the main drain outside the building; this is at all points disconnected from the house and thoroughly ventilated along its course, and is open at its highest and lowest points, so that a current of air may pass through it without impediment, and the sewage is at once conveyed by gravitation to a farm of 200 acres, and distributed in a perfectly harmless and almost odourless manner. Dr. Mitchell, one of the Commissioners in Lunacy, states that "in no Scotch asylum certainly, and probably in no asylum in the empire," are the sanitary arrangements so complete. There are at present about 360 patients in the house, and accommodation is now provided for a much larger number. At the commemoration gathering the greatest satisfaction on the part of the directors was expressed towards Dr. Howden, who unfortunately was confined to his bedroom from illness.

THE BEARING OF DRUNKENNESS IN CLUB PATIENTS.

WHEN drunkenness in an Oddfellow leads to sickness he is not entitled to the benefit of the club during the said sickness. The rule is that—"any member incapable of following his employment by any immoral or disorderly conduct, by fighting, or by accident or illness arising from intoxication, or continued excessive drinking, shall not be entitled to any sick pay." The rule is a most proper one. And an equally proper inference from it would seem to be that a member should have no claim on the medical attendant of the club for accident or disease so disgracefully incurred. The question has often been raised. It has been lately raised most properly before J. Stephen, Esq., County Court Judge, Holbeach, by Mr. A. H. Haines, in an action for £22 18s. for attendance upon a club member for delirium tremens and other disorders caused by drunkenness. The man at various times seemed to recognise that attendance on his ailments was a private affair between Mr. Haines and himself and had paid various bills on that view. The jury, we are glad to say, gave prompt judgment for the plaintiff for the whole amount, in spite, we regret to say, of some hesitation on the part of the judge. The judge did not see that the medical officer of the club was exempted from the duty of attending a member because of the rule quoted above. He thought the rule not at all explicit enough for this purpose. But he regarded the defendant's conduct in paying bills to Mr. Haines from time to time as capable of being construed into a kind of implied contract between himself and Mr. Haines. The sooner Oddfellows and other benefit societies make their rule complete the better. It is absurd and unjust to bind the medical officer to attend drunken members. Benefit societies have an enormous power for good in marking drunkenness as an offence against

societies and the working class generally. And they owe it to their medical officers to protect them in this matter. The profession is indebted to Mr. Haines for fighting this question very well before judge and jury.

GUNSHOT WOUND OF BRAIN.

A CASE of survival after a severe gunshot injury of the brain has recently occurred at Torquay. On June 14th a young gentleman, nineteen years of age, was found lying on the ground near Torquay, with a pistol-wound in the head. He was taken to the Torbay Hospital, and from information kindly afforded us we are able to state the nature of his injuries. There was a wound in the right temporal region, perforating the skull and the dura mater, and permitting the escape of brain matter. There was also extensive comminution of bone in the left parietal region from internal impact of the bullet, but here there was no external wound. When found the lad was conscious, and all symptoms of shock and concussion soon passed off. On the fifth day left facial and lingual paralysis was noticed; no other paralysis or any alteration in sensibility has since developed itself. The temperature has been within the normal range except a single rise to 102° on the third day, and the pulse has been regular throughout, only ranging from 60 to 68. The lad eats and drinks well, and his intellectual faculties are good. The wound is granulating, and up to the 5th inst. no fresh symptom had arisen. The bullet is conical, one-third of an inch in diameter, and it remains lodged in the cranium. According to Dr. Ferrier's experiments, the injury to the convolutions is localised in and near the ascending and middle frontal convolutions. This case has been mentioned in the lay press, where it has been erroneously stated that a considerable part of the frontal bone with brain matter attached had been shot away, and great surprise has been expressed at the boy's living after such an injury. The case is very interesting and remarkable, but by no means unique. Larrey drew attention to the fact that bullets may remain encysted in the brain for years without producing symptoms. In the surgical history of the American war many cases of recovery—some partial, some complete—after perforation of the brain by bullets, and after comminuted fractures with destruction of brain-matter, are recorded. In the Franco-German war other similar experiences were met with, and Dr. Gilbart Smith has related the case of a man who recovered from a sabre-cut received in the first Carlist war. The wound was followed by hernia of the brain, and the man was seen alive and well several years afterwards, with a large cavity within the skull, and an opening in the bone. His faculties were unimpaired, as shown by the fact that he was engaged in his business of a photographer. It is a well-known fact that injuries to the anterior part of the brain are less serious than similar injuries inflicted further back.

DUNDEE ROYAL INFIRMARY.

A PUBLIC meeting, called by the directors, and largely attended, was held a few days ago, when the feeling was unanimous against the provision of a separate hospital for children. It was, however, agreed that the establishment of a children's ward is advisable, and a committee was appointed to secure funds. It might have been well had such a course been pursued in the University towns in Scotland, as already in Edinburgh and Aberdeen independent institutions have been established which are attended by but a small proportion of the students. It is bad enough that many men should be licensed with an imperfect knowledge of some special diseases, but it would be intolerable to have children's diseases considered as a specialty either by teachers or students.

DRINKING-WATER IN INDIA.

WE have received a copy of a lecture delivered in Madras on April 1st, 1882, by Dr. M. C. Furnell, and published by the National Indian Association, on "Water and its Effects on Public Health." The object of the lecture was to draw the attention of the public to the widespread disgusting pollution of the tanks from which the drinking-water of the greater part of the population of India is obtained, and to enlist their co-operation in the adoption and practical working of measures to get rid of this fruitful source of disease. In the lecture Dr. Furnell related many instances which had come under his personal observation, in the course of his inspections as Sanitary Commissioner, of the manner in which the water is contaminated, and all regulations for its protection are systematically disregarded. He showed the good effects of obtaining a supply of wholesome water and protecting it from pollution in the instances of Guntur and Madras, the former of which has been free from cholera since 1868, and the latter has enjoyed a marked exemption from that disease since the town was supplied with water from the Red Hills. Dr. Furnell suggests the adoption and strict enforcement of a regulation that "in all municipalities, villages, and communities, certain tanks and wells shall be set aside *strictly* for drinking only. That bodies, clothes, animals, &c., shall not be washed there, but in certain other tanks." We wish him every success in this commendable endeavour to teach the people in Madras the value of a pure water-supply in preventing the spread of disease, and the important aid which individually can be given in carrying out well-conceived regulations to effect so desirable an object.

EXTENSION OF THE CRUELTY TO ANIMALS ACTS.

WE are glad to see that a short Bill—which there ought to be no difficulty in passing—has been brought in by Mr. Anderson, Mr. Samuel Morley, Mr. Jacob Bright, Mr. Passmore Edwards, and Mr. Buchanan, to place pigeon-shooting from traps or any similar contrivance under the ban of the Acts now in force "for the prevention of cruelty to animals." Possibly it might have complicated matters if the hunting of tame deer had been included under the same provision, but we heartily wish it could have been. Neither pigeon-shooting nor tame-deer hunting is "sport," in any true sense of the term, and they ought to have been placed in the same category with other forms of cruelty. It would tend greatly to improve the public taste and to clear the public conscience if these two seemingly small but really important blots on our humanity could be effaced.

PAY PATIENTS AT THE NORFOLK AND NORWICH HOSPITAL.

AT a meeting of the Norfolk and Norwich Medical and Chirurgical Society, held in Norwich on Tuesday last, Mr. Horace Turner moved the following resolution: "That, in the opinion of this meeting, the admission of pay patients into the Norfolk and Norwich Hospital, to be under the care of members of the staff only, who may be allowed to charge fees for their attendance, would be most unjust in its operation towards, and injurious to the interests of, medical practitioners in both county and city." There was a full attendance of members and an animated discussion took place. Ultimately the motion was carried by an overwhelming majority, the minority consisting of one member of the staff of the hospital. We are glad to learn that although five members of the staff were present, only one was found to oppose the motion, while one supported it, and three abstained from voting. After such an expression of opinion, it is to be hoped that even the one

who voted in the minority will be convinced that his position is untenable, and that the whole staff will withdraw from what would have been an utterly false position. The whole question of the admission of pay patients to charitable institutions is beset with objections and difficulties, but that the acting staff of a hospital should be allowed to take fees from such patients is a notion which ought not to be entertained.

THE SEGMENTAL NATURE OF THE SPINAL CORD.

THE spinal cord may be regarded as composed of a series of segments, indicated by the pairs of spinal nerves. According to Lüderitz this view of its structure is morphologically correct. The spinal cord of the ringed snake shows a slight rounded swelling opposite each pair of nerves, which lies above the junction of the respective vertebræ, and constantly corresponds in height to the middle of a segment. The enlargement is due chiefly to that of the grey substance, but partly also to that of the white and to an increased size of the so-called lateral group of cells. The demarcation between the segments cannot be exactly determined, but they are longer in the middle of the cord and shorter towards the extremities, especially towards the basal portion. Similar segmental swellings are to be discerned in the spinal cord of the rabbit, even on naked-eye examination. Careful microscopical measurements of the areas of the several constituents of the cord in transverse section show an analogy between these elemental segments and the swellings of the cervical and lumbar enlargements. The middle part of each segment, for instance, bears a similar relation to the extremities of each segment when the area of the constituent columns is compared. The increase in size at the middle of each segmental swelling is greater in the transverse than in the antero-posterior diameter. The grey substance is enlarged in all directions, but especially in width. The spinal cord of man, however, presents no segmental swellings, and its elements can only be recognised by the intervals between the series of nerve-roots which arise from it. These intervals are larger between the posterior roots than between the anterior, and they are the greater the longer are the segments, being greatest in the middle and lower dorsal regions.

FLOWERS FOR HOSPITALS.

THERE are few more delicate ways in which children can be brought under some sense of interest in the sick than by the device of a flower service for them in the various churches. We have already noticed a very successful effort of this kind by Canon Carpenter. We are glad to record a similar one by the Rev. Cecil Moore, St. John's Church, Paddington. The chancel space was one mass of flowers and fruit, and the communion table was covered by very beautiful flowers, nectarines, grapes, and strawberries. Some special cases of sickness in the district were not forgotten in the distribution, but the chief recipients were the patients in the various hospitals.

THE SALVATION ARMY.

WE will not withhold our good wishes from the Salvation Army, in the matter of its main object—"War," as "the General" puts it—"against drink, sin, and the devil." In our own way we are always waging a similar war. Our methods vary. The method of General Booth may lead to great and rapid disappointment if it depends too much on excitement and sensational appeals to the feelings. But we admit the urgent necessity of some adequate means of rousing men from vice and sin. The organised churches are too strait-laced and minister too exclusively to the good or those who think themselves so. "They that are whole need not a physician." If General Booth can abate drunkenness, increase purity, and put the churches on their mettle as moral and spiritual forces, he will gain the praise of "The Master," and the thanks of all good men.

COLLEGE OF PHYSICIANS IN IRELAND.

A MEETING of the Fellows will be held this week to make two appointments—viz., that of the King's Professorship of the Practice of Medicine, vacant by the resignation of Dr. William Moore, and the King's Professorship of Midwifery, vacant by the death of Sir E. B. Sinclair. For the first there are two candidates, Dr. John Magee Finny and Dr. J. W. Moore; and for the second no less than six gentlemen have declared their intention of competing. They are Drs. John Rutherford Kirkpatrick, John Augustus Byrne, J. M. Madden, Wm. Cox Neville, R. D. Purefoy, and W. J. Smyly. Of these, but one is a Fellow of the College of Physicians, while two are Fellows of the Royal College of Surgeons in Ireland.

SIR ERASMUS WILSON.

A FEW days since Sir W. Jenner, Dr. Wilson Fox, and Dr. R. Liveing held a consultation respecting Sir Erasmus Wilson's health. They decided that he should pass the summer months at Westgate-on-Sea.

PERSONATION AT MEDICAL EXAMINATIONS.

IT is not without reason that Mr. Macnamara directed the attention of the Council to the risk of personation at medical examinations. A case has just been heard in Dublin, before Mr. J. A. Curran, Q.C., in which a student of that city was summoned on a charge of attempting to induce a gentleman, Dr. Norris, to personate him at a Dublin examination, and offering him in the first instance £150 and afterwards £100. Dr. Norris immediately communicated with the police; hence this action. The student did not appear, but the Court issued a warrant for his arrest.

MR. THOMAS MADDEN STONE.

ON Midsummer-day last Mr. Thomas Madden Stone completed a term of fifty years in the service of the Royal College of Surgeons of England. In 1832 he was appointed assistant librarian, and in 1853 clerk, to the College. Many generations of practitioners recall with pleasure Mr. Stone's urbanity at the registrations and examinations of the College. His courtesy and his activity alike are still unabated. On Thursday last he took part at the College elections, and "made a tally" of the votes as accurately and expeditiously as of yore.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE Fund now exceeds last year's by some £400 or £500. The total amount from Hebrew congregations is £979 0s. 6d., almost exactly equal to their total of last year. We may now fairly expect the contributions for 1882 to reach at least £34,000.

THE College of Physicians and Surgeons of Chicago, U.S.A., has been incorporated. The building forming its local habitation is expected to be completed by September next. The list of the Faculty is published in the *Western Medical Reporter*.

DR. PATRICK HERON WATSON has been appointed one of the Surgeons in Ordinary to the Queen in Scotland, in the room of Professor Spence, deceased.

AT a meeting of the Executive Committee of the Darwin Memorial Fund, held on June 30th at the Royal Society's rooms, Burlington House, it was announced that the total subscriptions already promised or received amounted to £2487 13s. It was decided that the memorial should take the form of a marble statue; and a sub-committee was appointed to make the necessary arrangements. It was agreed to ask the Trustees of the British Museum for permission to place the statue in the large hall of the British Museum (Natural History), South Kensington. The following gentlemen form the sub-committee:—Mr. W. Bowman, Sir J. D. Hooker, Professor Huxley, Mr. C. T. Newton, and Sir F. Pollock, with the Chairman, Mr. W. Spottiswoode (President, Royal Society), the Treasurer, Mr. John Evans (Treasurer, Royal Society), and the Hon. Secretaries, Professor Bonney and Mr. P. Edward Dove.

AT the 101st annual meeting of the Massachusetts Medical Society, held on June 13th, a debate arose with regard to the admission of women to the Society. A motion in favour of altering the by-laws so as to admit them was met by an amendment referring the subject to the Council, and declaring that it was expedient that women should be admitted on the same terms as men. The amendment was carried; but when the matter came before the Council, that body decided by 65 to 36 votes to postpone the whole matter indefinitely.

AT the recent meeting of the American Medical Association, held at St. Paul, Minn., in the first week in June, steps were taken to promote the publication of a weekly medical journal in lieu of the annual volume of Transactions hitherto issued. A board of trustees (consisting of Dr. Sayre of New York, Dr. Toner of Columbia District, Dr. Foster Pratt of Michigan, Dr. R. J. Dunglison of Pennsylvania, Dr. R. Battey of Georgia, Dr. W. J. Peck of Iowa, and Dr. H. O. Marcy of Massachusetts) was nominated to further this object.

PROFESSOR HERMAN KNAPP, M.D., has accepted the chair of Ophthalmology in the University of the City of New York, made vacant by the resignation of Professor D. B. St. John Roosa.

THE vacancy in the list of honorary surgeons to the Viceroy, caused by the lamented death of Surgeon-Major R. W. Cunningham, M.D., has been filled up by the appointment of Surgeon-Major G. C. Chesnaye, of the 4th Goorkhas.

THE General Medical Council is still sitting at the time of our going to press, and the session seems likely to continue for a day or two longer.

SMALL-POX having broken out in Cape Town, a large quantity of vaccine lymph has been forwarded to the colony at the request of the Government.

THE PRINCESS ALICE MEMORIAL HOSPITAL.—On Wednesday Princess Christian laid the foundation stone of the Princess Alice Memorial Hospital, at Eastbourne. The late Princess Alice, it will be remembered, resided at Eastbourne with her family several weeks in the autumn prior to her death, and on her decease it was resolved at a town meeting to give expression to the respect in which she was held by erecting what should be called the Princess Alice Memorial Hospital. An acre of ground, within a short distance of and to the west of the railway station, was given as a site by Mr. C. Davies Gilbert, and subscriptions to the amount of £3300 having been obtained, a contract to erect the building for £4547 was entered into.

BRIGHTON SEWERAGE.

THE Report of Sir Joseph Bazalgette on the Sewerage of Brighton reached us last week, after THE LANCET was issued, or we should gladly have printed it. We now print it *in extenso*. The suggestions made by the eminent sanitary engineer, to whose judgment the Corporation has appealed, afford the most complete justification of all that we have urged on the subject. Indeed, the new works recommended and the alterations required exceed in extent and costliness anything we had contemplated. It is not our purpose, on the present occasion, to enter into a discussion of the means by which Sir Joseph Bazalgette hopes to remedy the defects he has discovered. Doubtless some of them are valuable, while to others we should be inclined to demur as either insufficient or inappropriate. Suffice it to say that the number and expense of the measures suggested to meet what he calls "minor exceptions" are alike startling. The authorities of Brighton are to be congratulated on the decision at which they have promptly arrived to carry out the extensive series of works recommended by their engineer, without either delay or parsimony.

If the advice of Sir Joseph Bazalgette was requested before we called attention to the subject, that in itself would be evidence that a strong misgiving existed as to the actual state of matters. If, on the other hand, it is only *since* the appearance of our articles the Corporation has recognised the need of a scrutiny, and entrusted the task to an authority of its own selection, the people of Brighton should be thankful for the assistance we have been able to give them, and we shall have cause for self-congratulation that we raised the warning cry in the interests of public health. In any case, the sewerage of Brighton will now be thoroughly overhauled, and we earnestly hope that by some measures of reform and reconstruction—whatever they may be—the insanitary condition to which we have felt it necessary to call attention will be finally changed.

BRIGHTON SEWERAGE.

Report of Sir Joseph Bazalgette, C.B., C.E.

"Spring-gardens, London, S.W., June 27th, 1882.

GENTLEMEN,—In accordance with the instructions contained in the Town Clerk's letter of the 3rd ult., requesting me to advise the Town Council with reference to the flushing and ventilation of the public sewers in Brighton, I have examined the condition of the sewerage system of the town, more especially with reference to the ventilation and cleansing of the sewers. But before making specific recommendations on the subject more immediately referred to me, it may be well to take a brief retrospect of the results of some of the methods which have from time to time been suggested and tried for the better ventilation of the sewers of towns.

The removal or treatment of the gases resulting from decomposition in sewers, in an offensive manner, is a subject which during the last half century has received much consideration. When in 1850 I was conducting experiments on the ventilation of the sewers of London, I had the advantage of consulting with that eminent chemist, Professor Faraday, who had previously given much attention to the subject, and who, in his evidence before a Parliamentary Committee as early as 1834, had expressed the opinion that it was beset with great difficulties. Subsequently I visited some of the mines in the north of England and in Wales, in order to see how far any of the modes adopted for their ventilation could be applied to the better ventilation of sewers, and I became acquainted with most of the suggestions which have been

made for otherwise dealing with the gases generated in sewers.

In 1858 a Committee of the House of Commons, consisting of Lord Palmerston, Lord John Russell, Lord John Manners, Sir Benjamin Hall, Mr. Robert Stephenson, and Mr. Tite, directed me to make experiments on the effect produced by extracting and burning the gases of sewers by means of furnaces.

Those experiments were conducted with the furnace in the clock tower of the Houses of Parliament, and I subsequently gave evidence before that Committee, to the effect that in the immediate neighbourhood of the furnace the indraught was found to be very strong, but that, whilst the supply of air was drawn with great force from the sewer inlets close to the furnace, the air current produced in the sewers at a short distance from the furnace was scarcely perceptible.

The Committee of the House of Commons reported that although such a process might be advantageous to sewers within a short distance of the furnace, it could not be successfully applied to any wide range of sewers on account of the number of openings which unavoidably communicate with them, the nearest of which to the furnace would supply it with atmospheric air, whilst the gases in the further part of the sewers and house drains would remain unaffected by its action.

In a mine there is but one downcast and one upcast shaft, and all the air brought into the mine at the downcast shaft can be directed and conducted at will, and discharged at the upcast shaft after it has passed through the whole length of the various galleries; whereas, in an ordinary system of town sewers, provided with inlets for the admission of water at every house drain, gully, and branch sewer connexion, the beneficial effect of furnaces, fans, or air pumps, becomes limited to a comparatively small area. But, wherever furnaces exist in the neighbourhood of sewers, it is, nevertheless, desirable to connect them with the sewers. In long lines of intercepting and outfall sewers, which have no branch connexions or openings along their route, furnaces have been, and may be used with the same beneficial results as in mines.

In 1866 Dr. Miller, F.R.S., and I conducted a series of careful experiments on the effect of ventilating sewers through charcoal, which extended over a period of twelve months, and embraced a large drainage area. The sewers were cut off from all other means of ventilation, except through charcoal trays of various forms fixed in the ventilators. We found that whilst dry charcoal is an efficient means of deodorising and disinfecting sewage gases its introduction into the ventilators produced a sensible retardation of the current of air in the sewers, and the carbonic acid in them was increased, on an average of our experiments, from ·106 to ·132 per cent., and the mean temperature in the sewers was thereby raised from 50·8° to 56·2°. The beneficial effect of charcoal is, moreover, considerably reduced by moisture, and it therefore requires renewal at no very distant periods, varying according to the state of the atmosphere. Charcoal may be introduced with advantage into such ventilators as are the cause of any special annoyance, but as they retard the current of air their number and area would, if generally adopted, have to be increased to an extent which is for many reasons undesirable.

Shafts connected with the sewers, and carried through lamp-posts in the streets, or to the tops of adjoining buildings, away from the chimneys and upper windows, might in many cases be so constructed as to ventilate the sewers efficiently, provided they were sufficient in number and in the area of their openings. But there is frequently much difficulty in obtaining the necessary consent for ventilators up the sides of houses on account of their having to be placed on private property.

The use of sulphurous acid and chlorine gas placed in ventilating shafts, and various other chemical or mechanical antidotes, have been attended with more or less beneficial results, and most of them may, under favourable circumstances, be applied in particular places with advantage; but all these modes of treatment require such constant attention and frequent renewal that they thus become liab e to failure.

In order to prevent the evolution of noxious gases from sewage the great object to be attained is its dilution and rapid removal, before decomposition has set in, by a copious supply of water, through sewers having sufficient falls to prevent the accumulation of deposits in them. Where these conditions cannot otherwise be sufficiently secured the sewers should be kept clean by periodical flushing.

Road detritus, if allowed to enter and deposit in the sewers, will accumulate and precipitate with it much of the sewage which otherwise would not deposit. The efficient scavenging of the surface of the roads, and the interception of the detritus washed off them during heavy rains by properly formed catchpits, are therefore essential to the maintenance of clean sewers. Macadamised, chalk, or gravel roads, especially those having steep inclinations, require particular attention in these respects.

In 1878 there were in the metropolis 1700 miles of roads, of which about 1300 were macadam or gravel, and from the surface of the whole were removed in one year over 600,000 cubic yards of detritus, at a cost of about 1*s.* per yard, whilst about 100,000 yards were removed from catchpits under the gullies, at a cost of 2*s.* 6*d.* per yard, and 20,000 cubic yards were taken from the sewers at a cost of about 25*s.* per yard. Thus it will be seen that effective scavenging and the construction of proper catchpits are economical as well as being advantageous to the condition of the sewers.

There are few who will not now recognise that the removal of the refuse of large towns by water is so vastly superior to any other known method as to have caused it to be an essential in these days of civilisation and refinement. But the underground carriers must be freely ventilated, or the gases generated in them will escape into the houses, where, being shut up and but slightly diluted with atmospheric air, they are inhaled day and night, and become injurious to health and dangerous. It will be found upon close investigation that in the great majority of cases where persons have suffered from the effect of sewer gases the mischief has arisen from defective house drainage and not from the public sewers. Every house drain should be formed of stoneware pipes laid with sufficient fall to prevent the accumulation of deposit, and ventilated from its upper end to the roof of the house; but very few are so ventilated.

The gases escaping from efficient sewers ventilated on to the surface of the roads may, nevertheless, in certain states of the atmosphere be offensive in the immediate neighbourhood of such ventilators, and although no universal system of ventilation has yet been discovered which can be always applied without any inconvenience, some satisfactory mode may in every case be selected according to the varied conditions of the localities to which it has to be applied. Attention to the foregoing principles of construction and maintenance of the sewers will very materially promote their ventilation without offence or injury.

I have carefully inspected the main intercepting sewer of Brighton, which was constructed by Sir J. Hawkshaw in 1871–4. It commences at the western end of Hove, where its invert is about 1 ft. 6 in. above high water spring tides, and it is carried under the main road facing the sea to Portobello, where its outfall is four miles east of Kemp Town, and its invert is at the level of low water spring tides. From the Steine to the outfall it is 7 ft. in diameter, and it has an average fall of 3 ft. in a mile, and this gives a mean velocity of flow of about 1½ miles per hour when running half full. But in dry weather the rising tide closes the outfall for thirteen hours out of twenty-four, and thus the lower portion of the sewer becomes a reservoir, and stores the sewage until the tide has again fallen below its level.

From the observations recently made and furnished to me by Mr. Lockwood, it appears that the ordinary dry weather flow of sewage rises during the time the outfall is closed to a maximum height of three to four feet above the sewer invert at the Roedean furnace, and it reaches the maximum there at about three hours after high water; the tide has by that time fallen below its level, and it again falls to its normal condition.

Flaps have been placed across the sewer at Roedean to prevent air from the lower end of the outfall from passing above this point. Above the flaps the sewer is connected with a lofty ventilating shaft, at the foot of which a large furnace is kept continually burning, and as there are only four small openings into the outfall between the furnace and the Steine, a continuous current of air down the sewer towards the furnace is maintained, and is very perceptible at the Steine. This ventilation at the time of my visit was quite satisfactory. The flow in this sewer is sufficient to remove all deposit, excepting a few inches in depth extending for a short distance above the Portobello outfall.

In seasons of heavy rain, however, when the sewer becomes charged with storm water the furnace ventilation

is interrupted. In order therefore to relieve the intercepting sewer during heavy and continuous rain by discharging the storm waters more rapidly, I recommend that an additional storm outlet of the full size of the intercepting sewer be constructed from it into the sea opposite the Roedean furnace, the invert of the storm outlet to be level with the invert of the intercepting sewer at that point, and that it be protected and placed under command by proper tide flaps, and penstocks to be constructed in a penstock chamber. The men who attend to the furnace could also work these penstocks when required.

I further recommend the formation of additional storm outlets at the upper or Hove end of the intercepting sewer, which also would relieve it from becoming overcharged, and thus improve its condition.

It has been suggested that the Shone system, as adopted at Eastbourne, should be applied to Brighton for the more rapid removal of its sewage, thus, it is said, preventing the generation of sewage gases and contamination of the subsoil. The Shone system, as applied at Eastbourne, is simply the application of compressed air as an agent for pumping sewage from a lower to a higher level, and thus in dry weather a continuous flow at the outfall is obtained. But, as already stated, that portion of the Brighton outfall which is tide-locked is so far from Brighton, and its ventilation is so completely cut off by flaps across the sewer at Roedean, and the outfall between Kemp Town and Roedean is so effectually ventilated by the Roedean furnace, that there are no grounds for any complaint of the ventilation of this portion of the outfall sewer, and no advantage would be gained at Brighton which would justify the expenditure for pumping the sewage from it in dry weather. The Shone system would, moreover, be quite incapable of pumping the waters brought down in times of heavy rain. The air-tight pipes, which it has been said would prevent the generation of sewer gases and the contamination of the sub-soil, are introduced in the Shone system, not as substitutes for the existing sewers, but in addition to them and for forcing the sewage received from the ordinary sewers through the iron pipes to a higher level wherever pumping may be required. It would therefore be erroneous to suppose that the introduction of these additional iron pipes would prevent the generation of sewer gases or improve the ventilation or condition of the existing system of sewers. The branch sewers of Brighton have remarkably good falls, varying mostly from 1 in 50 to 1 in 150, and pumping is therefore unnecessary, and I fail to see in what manner the Shone system could be so applied as to be of any benefit to Brighton.

There are only nine sewer connexions with the main intercepting sewer and three drains from the Aquarium between the West end of Brighton and its outfall, and no other junctions up to South Avenue, Hove, excepting a storm connexion opposite Lansdowne-place, but between it and Hove-street, a distance of 2000 feet, there are eleven sewer and thirty house drain connexions. With these exceptions the house drains of Brighton and Hove are connected with the local sewers, some of which are parallel to and above the line of the intercepting sewer.

Four catchpits have been formed in the branch sewers near to their junctions with the main sewer, one at Waterloo-street, one at Western-street, one at East-street, and one in the Steine Valley branch. Also one in the main intercepting sewer opposite Fourth-avenue. If the road detritus gets into these catchpits it is liable to collect with it the sewage mud, and it will therefore be better that catchpits of sufficient size to intercept the road detritus should be formed under the gullies near the surface so as to obviate the necessity for the catchpits in the sewer, which should then be filled in. Some of the ventilators opening on to the surface of the roads should have charcoal trays fixed in them and additional ventilating openings should be formed in the neighbouring lamp posts.

For a considerable length of the sea frontage there are two parallel roads, divided by a line of iron railings, upon which the road lamps are fixed. By substituting for some of the present lamps others of an ornamental character, having tubes of not less than six inches in diameter passing through them, and connected with the adjacent sewers, and by, at the same time, fixing charcoal trays in the road ventilators, sufficient ventilation of the sewers may be secured without annoyance.

The complaints of defective ventilation have come mainly from the higher districts, and the upper ends of the sewers which mostly have rapid falls. The upper or dead ends of these sewers should be connected with the adjoining sewers where practicable, so as to create a current through them. Thus, for instance, the ends of the sewers in Church-street, Buckingham-road, and Leopold-road, should be connected with the Dyke-road sewer, and the sewer in Queen's-place with the sewer in London-road. A pipe carried from the end of Wellington-street to Pevensey-road, would connect five dead ends, and three near the eastern end of Eastern-road and Bristol-road should be connected. Mr. Lockwood has furnished me with a list of the complaints he has received, showing the manner in which most of them have been satisfactorily dealt with. Some few of these have been removed by obtaining the consent of the owners of adjacent houses to construct ventilators from the sewers up their sides and above the roofs; but it has been found difficult to carry this out to a large extent, owing to objections raised by owners and occupiers. To accomplish this requires very careful and patient negotiation, and must be a work of time. Although I have personally inspected all these localities I do not propose to refer to individual cases in this report.

It should be made compulsory for a shaft, not less than six inches in diameter, to be carried from the house drains up the roofs of all houses to be built hereafter. It may also be arranged in some instances that in erecting new houses pipes or flues may be carried up for the ventilation of the adjoining sewer, but the upper ends of these should always be at a distance from the windows or other openings into the houses.

Some intelligent officer might be advantageously employed for a time under your surveyor in negotiating and carrying out the ventilation of the sewers, where there is at present any cause for complaint, through gas lamps, or shafts constructed in blank walls, or into furnaces or through lamps erected at "refuges" at the street crossings, or up the blank ends of houses or by other means, according to the various requirements and opportunities presented in each case. In the course of my inspection with Mr. Lockwood, we noted several cases where these suggestions could be applied with advantage. But in most of these it would be necessary that the consents of owners and occupiers of the adjoining houses should be obtained.

Mr. Lockwood informs me that the volume of the water supplied to Brighton and Hove is about 600,000 cubic feet per twenty-four hours, giving, on the average, a flow night and day through the sewers of 416 cubic feet per minute, which on a population of 132,000, is equal to 28¼ gallons per head. This is but very little below the rate of the water supply of London, which is about 31 gallons per head, and the falls in the Brighton sewers are better than in London. It has been ascertained, by measurement in the sewers, that the maximum flow during the day (that being the period when it is most needed as a carrier for the removal of town refuse) varies from three times to four and a half times the minimum flow during the night. But it has been stated that during dry weather as much as 1,200,000 gallons of water per week, or at the rate of 90 tons per day, have been used for flushing those sewers which required it. This flushing has been done by filling the manholes, at the upper ends of the sewers to be flushed, with water from the mains, and, when full, letting it go through the sewers with a sudden rush. I recommend that this be continued in dry weather, more especially at the upper or dead ends of the sewers where the flow of sewage is smaller than at their lower ends, and, if properly carried out, it ought to prevent the accumulation of deposit, but I do not recommend the admission of a large volume of tidal water into the outfall sewer for the purpose of flushing.

The branch sewers generally are too small to have enabled me to enter and inspect them, but having regard to their superior inclinations and the condition of the larger sewers which I examined, and which had not such rapid falls, and from the observations and inquiries I have made, extending over several days, I am of opinion that, with some minor exceptions, to which I have already referred, and for which I have suggested various remedies, the general condition of the sewers of Brighton is satisfactory, and there are no just grounds for assuming it to be an unhealthy place; on the contrary, I believe it still deserves the high reputation it has always maintained as a desirable place of resort for those who seek the enjoyment of pure and invigorating air.

I am, Gentlemen, your obedient servant,

(Signed) J. W. BAZALGETTE.

To the Mayor and Corporation of Brighton."

THE WIRRAL HOSPITAL.

ON Saturday, July 1st, Lord de Tabley, R.W.G.M., of Cheshire, laid the corner stone of the new building of the Wirral Children's Hospital. The ceremony was performed with Masonic honours, and his Lordship was supported by a large gathering of the Masons of the county. This hospital, which receives patients not from Birkenhead only, but from the whole hundred of Wirral, originated in the efforts of five local gentlemen early in 1869. The first beginnings were in a very humble way, a small house (rental about £30) being occupied till the end of 1872, when the institution was removed to the building now in use, an old dwelling-house in Oxton-road, which affords accommodation for sixteen in-patients. During the past thirteen years the hospital has done excellent work, and the demands made upon it have been yearly increasing. Thus the number of in-patients, which from 1869 to 1872 averaged 61 per annum, during the last three years has averaged considerably over 100 per annum. Latterly adequate accommodation has been so pressingly needed that it has been found necessary to hire a small house about fifty yards from the hospital, where are provided six additional beds.

The determination to build a new hospital was come to last year, and so prompt a response was made to the proposal that by December a sum amounting to £4250 was raised, and it was felt that a building fund of £6000 would doubtless be obtained without difficulty. Designs were accordingly invited. The design selected has a central administration with wards on either side, something in the form of an H. It is proposed to build the centre and one side only at first, and this will allow space sufficient for about forty beds. The architect is Mr. John Clarke, and the style of the building is what is termed Domestic Gothic.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Taunton (*Urban*).—Dr. Alford has recently issued his reports on the sanitary condition of his two sanitary districts during last year. The population of the borough of Taunton is given as 16,611 persons, among whom the birth-rate was equal to 30·9, and the death-rate to 20·9 per 1000 during 1881. It appears that the zymotic death-rate was 3·1 per 1000, and nearly double the rate that prevailed in 1880. This excessive zymotic fatality was mainly due to the epidemic prevalence of measles in the early part of the year. An outbreak of scarlet fever occurred in the autumn; that it did not assume serious proportions, as on former occasions, is attributed by Dr. Alford to the existence of the Sanitary Hospital. The deaths from other zymotic diseases were not numerous, but included seven from whooping-cough, six from diarrhœa, and four from diphtheria. The value of the report would have been increased by the insertion of a small table containing a statistical summary for recent years; and some reference to the rate of infant mortality might have been looked for. Dr. Alford once more takes the opportunity to impress upon the sanitary authority for the borough of Taunton the urgent necessity for ventilating the sewers, no action having yet been taken upon his special report on this subject, made in November last under instructions from the Sanitary and Drainage Committee of the Town Council. Dr. Alford warns his authority that, "until this evil [want of sewer ventilation] is remedied much sickness and ill health, and many deaths which might have been averted, will inevitably occur." Another sanitary defect to which attention is directed is the filthy condition of a great number of dwellings in the town, some of which are described as hardly fit for human habitation. A house to house visitation is spoken of as absolutely necessary, as well as more frequent visits from the inspector of nuisances, as "it too often happens that filthy houses are only found out when disease has appeared and the mischief is done." There is evidently need for greater activity or a larger staff in the sanitary department of the Town Council. Dr. Alford speaks gratefully of the improvement of the water supply, and of the town scavenging, also of the benefit derived from the sanitary hospital, to which thirty-two patients were admitted during the year, and in which only four deaths occurred.

Taunton (*Rural*).—The Rural Sanitary District of Taunton comprises an area of more than 100 square miles, on which the population in 1881 is stated to have been nearly 20,000. The birth-rate in this population was equal to 27·6, and the death-rate to 15·3 per 1000 of the population. The deaths are stated to have been below the average for the eight preceding years, but no comparative statistics are given for those eight years, which is to be regretted, as the marked difference in the age-constitution of the population of the rural district forbids any comparison with the statistics for the urban sanitary district. Speaking generally, Dr. Alford considers that the sanitary condition of the district is slowly but surely improving, but that this improvement can only be maintained by constant supervision. Several outbreaks of infectious disease are attributed to the concealment of the first cases; and in the case of a serious epidemic of scarlet fever at North Curry, the medical officer of health admits that "it was thoroughly established, and deaths had occurred before I heard of its existence." Some cases of disease were admitted to the Sanitary Hospital from the district during the year. The total zymotic fatality of the district included 8 deaths from scarlet fever, 7 from measles, and 4 both from enteric fever and diphtheria, and caused a death-rate of 1·4 per 1000. The proportion of infant mortality appears from the tables to have been low, but it is not specially referred to. The report, while recording sanitary work in many parts of the district, affords abundant evidence that in the matters of water-supply and nuisance disposal much remains to be done in many of the villages to meet the increasing difficulties of rural sanitation.

Greenock.—Dr. Wallace reports that during the five weeks ending 3rd June the annual death-rate in Greenock was equal to 24·1 per 1000, which was 1·2 above the rate for the corresponding period of 1881. The deaths from diseases of the zymotic group did not exceed 6·2 per cent. of those from all causes; they included 2 from diphtheria, and 1 each from enteric fever and scarlet fever. It is noted that during the period under review 57 cases of infectious disease were reported; of these 35 were reported by householders, 3 by the infirmary officials, 12 by the sanitary officers, and 6 by the registrars. The cases removed to the hospital during the five weeks were 13, including 5 of typhus, 3 of scarlet fever, and 2 of diphtheria; 11 cases remained in the hospital on the 3rd of June.

Alcester District (*Rural*).—Mr. G. N. Fosbroke, medical officer of health for one of the Midland combined districts, gives in his annual report for this district some very interesting information as to the value of maintaining in a state of preparedness means for isolating infectious cases. During the past year there have been numerous disconnected outbreaks of scarlet fever, and in six of these the disease has been limited to a single family, a result which he explains has been brought about in each case by the immediate removal of the first patient attacked to the Alcester Sanatorium. It appears that during seven years as many as 372 cases of infectious disease have been admitted into this hospital, and also that a large proportion of the patients admitted have been young children, and this although the accommodation provided is admittedly plain, and was, as a matter of fact, never intended to constitute a permanent building. To its management much of this satisfactory result is attributed, and first amongst the conditions of administration which are specified as important is the circumstance that a resident nurse is maintained who always keeps the hospital in such a state of readiness for occupation that a first case of infectious disease can instantly be received from any house attacked, and thus as a rule the spread of infection is at once checked. Mr. Fosbroke's district includes a population of a very varying character, but it is to a large extent made up of artisans and agricultural labourers, who of all others stand in most need of means of isolation when attacked with such a disease as scarlet fever. The success experienced in his district should, he says, "act as an incentive to all sanitary authorities to provide fever hospitals," a statement in which we thoroughly concur; but we would go further in advising authorities who are hesitating as to the provision of such hospitals to visit Mr. Fosbroke's district, and learn all the details of his continued success in this matter.

St. Asaph (*Rural*).—Dr. Lloyd-Roberts' report upon the

sanitary condition of this rural sanitary authority during 1881 acquires additional interest from the recent official inspections in Denbighshire by Dr. Parsons, under the direction of the Local Government Board, with a view to the formation of a combined district. The report before us deals with a population of 15,275 persons, and, so far as may be judged from the mortality statistics, the health of the district during last year was fairly satisfactory. The gross death-rate was 18·9 per 1000; this rate is somewhat excessive if full consideration be given to the age-constitution of the population, as evidenced by a birth-rate not exceeding 28·8 per 1000. However, the proportion and rate of zymotic fatality were very low, only 4·8 per cent. of the total deaths being referred to the principal zymotic diseases, equal to a rate not exceeding 0·5 per 1000. The rate of infant mortality was also low during last year. Dr. Lloyd-Roberts appears to have published annual reports for this district since 1875, and this being the case we regret to miss from the present report a summary table of the principal statistics for the six or seven years embraced by these reports. Statistics for a single year relating to so small a population as that of St. Asaph district, standing alone, are of comparatively little value as a test of sanitary condition. In the face of the local sanitary shortcoming pointed out by Dr. Lloyd-Roberts, it is unsatisfactory to learn that "no public works have been carried out during the year." It is evident that much still needs doing in the way of sewering and improvement of the water-supply, and, with such a report as the present in their hands, the rural sanitary authority of St. Asaph cannot plead ignorance of their urgent public health duties.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5739 births and 2936 deaths were registered during the week ending the 1st inst. The annual death-rate in these towns, which had been equal to 19·0 and 19·1 per 1000 in the two preceding weeks, declined last week to 18·1, and was lower than in any previous week of this year. The lowest rates in these towns last week were 9·5 in Wolverhampton, 12·5 in Huddersfield, 13·1 in Sunderland, 13·3 in Brighton, and 13·5 in Norwich. The rates in the other towns ranged upwards to 22·3 in Liverpool, 23·5 in Bolton, 24·4 in Manchester, and 25·1 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 464, and exceeded by 8 the number returned in the previous week; 135 resulted from whooping-cough, 96 from diarrhœa, 87 from measles, 74 from scarlet fever, 46 from "fever" (principally enteric), 17 from diphtheria, and 9 from small-pox. No deaths from any of these diseases were recorded last week in Norwich, while they caused the highest death-rates in Bolton and Hull. Whooping-cough was proportionally most fatal in Bolton and Bristol; measles, in Huddersfield and Plymouth; scarlet fever, in Hull and Brighton; and "fever" in Portsmouth, Bolton, and Hull. The 17 deaths from diphtheria in the twenty-eight towns included 12 in London and 2 in Liverpool. No death from small-pox was recorded in London, whereas 3 were returned in its suburban districts, 3 in Nottingham, 2 in Salford, and one each in Liverpool, Manchester, Leeds, and Hull. The number of small-pox patients in the metropolitan asylum hospitals, which had steadily declined in the nine preceding weeks from 350 to 242, further fell to 233 on Saturday last; 29 new cases of small-pox were admitted to these hospitals during last week, against 44 in each of the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 200 and 198 in the two previous weeks, rose to 212 last week, and exceeded the corrected weekly average by 11. The causes of 63, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Leicester, Bolton, Oldham, and in five other smaller towns, while the proportions of uncertified deaths were largest in Sheffield and Hull.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight large Scotch towns, which had been equal to 20·8 and 22·4 per 1000 in the two preceding weeks, declined again to 21·9 in the week ending the 1st inst.; this rate, however, exceeded by 3·8 the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 100 last week, and showed an increase of 18 upon the number returned in the previous week; they included 32 from diarrhœa, 25 from whooping-cough, 17 from measles, 12 from "fever," 10 from diphtheria, 4 from scarlet fever, and not one from small-pox. The 32 deaths attributed to diarrhœa showed a further slight increase upon recent weekly numbers, and were 5 above the number in the corresponding week of last year; 10 occurred both in Glasgow and Dundee, and 7 in Edinburgh. The 25 fatal cases of whooping-cough also showed a further increase upon recent weekly numbers, and included 16 in Glasgow and 5 in Edinburgh. The deaths from measles, which had been 24 and 7 in the two previous weeks, rose again to 17 last week; 8 occurred in Dundee and 4 in Glasgow. The 12 deaths referred to "fever" also showed an increase, 5 being returned in Perth and 4 in Glasgow. Four of the 10 deaths from diphtheria occurred in Glasgow and 2 in Greenock. Scarlet fever caused 2 deaths in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 105 and 111 in the two preceding weeks, declined to 97 last week, and were one below the number attributed to these diseases in the corresponding week of last year.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 19·3 and 23·2 per 1000 in the two preceding weeks, declined again to 20·7 in the week ending the 1st inst. During the thirteen weeks of last quarter, however, the death-rate in the city averaged 26·8 per 1000, against but 19·5 in London and 20·5 in Edinburgh. The 138 deaths in Dublin last week showed a decline of 17 from the number in the previous week, and included 5 which were referred to diarrhœa, 4 to measles, 4 to "fever," one to diphtheria, and not one either to small-pox, scarlet fever, or whooping-cough. Thus 14 deaths resulted from these principal zymotic diseases, against 10 and 8 in the two preceding weeks; these 8 deaths were equal to an annual rate of 2·1 per 1000, against 3·0 in London and 3·1 in Edinburgh from the same diseases. The 5 deaths attributed to diarrhœa showed a further increase upon recent weekly numbers. The fatal cases of measles were also more numerous; since the beginning of the year no fewer than 551 deaths from this disease have been recorded within the city. The deaths referred to "fever" also showed an increase upon those in the previous week. The causes of 18, or more than 13 per cent., of the deaths in the week were uncertified.

THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Thomas William Wright has been granted retired pay, with the honorary rank of Brigade-Surgeon. Surgeon-Major Robert Hyde, from half-pay, to be Surgeon-Major, vice E. McGrath, promoted.

ARTILLERY VOLUNTEERS.—1st Cinque Ports: Edward Alexander White, Gent., B.A., M.D., to be Acting-Surgeon.—1st Northumberland and Sunderland: William Pope Mears, Gent., M.B., to be Acting-Surgeon.

RIFLE VOLUNTEERS.—1st Dorsetshire: Surgeon Henry Tizard, M.D., resigns his commission.—1st Flintshire and Carnarvonshire: Honorary Assistant-Surgeon Thomas Moffat, M.D., resigns his commission.

ADMIRALTY.—Fleet-Surgeon John Rorie has been placed on the Retired List from the 25th instant, with permission to assume the rank and title of Retired Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet. Staff-Surgeon Mark Anthony Harte has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet, with seniority of June 15th, 1882. Fleet-Surgeon William Henry Cruice, to the *President* (additional). Staff-Surgeon Nicholas Thomas Connolly, to the *President* (additional).

THE Princess of Wales has, in sympathy with the recent opening of the new extension building of the Consumption Hospital, Brompton, signified to the Committee her willingness to become a patroness of the institution, and to allow a gallery in the new hospital to be named after her Royal Highness.

Correspondence.

"Audi alteram partem."

THE AUDITORY METHOD OF DETECTING STONE IN THE BLADDER.

To the Editor of THE LANCET.

SIR,—When the microphone was first employed to intensify the note produced in sounding for stone, Mr. Foveaux, then with Messrs. Weiss and Son, suggested the plan of connecting the sound with the ear by means of an india-rubber tube, precisely in the manner just proposed by Mr. Davidson. It was tried by Sir Henry Thompson, by myself, and by one or two others, with the result now described—viz., that of rendering very slight contact with a hard body audible, although the microphone was undoubtedly more powerful in its results. There was this objection, however, to the india-rubber tube—which, by the way, need only be quite small—namely, that it interferes with the delicate handling necessary to perform those movements of light sounding which are alone of any service in searching for a small calculus or fragment. If the tube is thick or heavy, no really delicate exploration with a sound can take place, and no other mode is worth cultivating to be of any service; a fact perhaps not generally estimated at its true value. It is not with the slightest desire to detract from the credit of original idea or of ingenious resource justly due to Mr. Davidson that this is named, but to show that the plan has already been considered, and to a certain extent appreciated. Sounding for small fragments is now a thing of the past. The proceeding is required only to find the original stone, when it is small if possible, and therefore as early as its presence can be verified. The modern aspirator (*vide* THE LANCET, Jan. 7th, 1882, page 2), especially with the latest improvements, reveals, as well as removes, fragments far more certainly than any other instrument, enabling us to complete lithotrity at one sitting; after which it is very rare indeed now to have any further trouble in "searching for a last fragment."

I am, Sir, yours faithfully,

Wimpole-street, W., July, 1882. G. BUCKSTON BROWN.

"THE BRAINS OF CRIMINALS."

To the Editor of THE LANCET.

SIR,—In your issue of June 3rd you comment on Professor Benedikt's views on the above subject, and state that according to the *New York Medical Record* I had adduced counter facts and statistics which involve "the collapse of Professor Benedikt's attempt to furnish an anatomical basis for crime." My limited observations scarcely justify such an expression. In the brains of two murderers which I had the opportunity of examining many of the fissures were of the so-called confluent type. I then proceeded to examine the arrangement of the convolutions and sulci in my collection of brains, and found that in sixty-three hemispheres a considerable proportion of the fissures were more or less confluent. My conclusions were as follows:—

1. That a considerable proportion of the brains of hospital patients are of the confluent fissure type.

2. The chief difference to be noted between Professor Benedikt's series of criminals' brains and those which I have gone over, is the somewhat greater number of unions between typical fissures, more particularly between the fissure of Rolando and contiguous ones. Thus in his set of thirty-eight hemispheres, this fissure connected completely or incompletely with the fissure of Sylvius in twenty-four instances; in my series in only ten. In the other fissures the disproportion is not nearly so great.

3. Considering the number of brains of ordinary hospital patients which present in some degree the confluent fissure type, it would seem more reasonable not to assign as yet any special significance to it until we have fuller information about the arrangement of the convolutions in the various races, and until a much larger number of the brains of criminals of all countries have been examined.

I am, Sir, your obedient servant,

WILLIAM OSLER.

Physiological Laboratory, McGill College, Montreal.
June 12th, 1882.

IRELAND.

(*From our own Correspondent.*)

IN 1866 cholera was brought into Dublin by the removal to one of the city hospitals of a patient from the ship by which he arrived in port. Owing to a belief that a fresh invasion of the same dreaded disease was likely to take place in 1874, a port hospital ship was constructed and placed in the harbour during that year, with a view of intercepting contagious diseases coming from other parts. The Corporation and the North and South Dublin Boards of Guardians wish now to get rid of the expense of keeping up the floating hospital, which has cost upwards of £2000, and accommodated, it is said, only one patient since its establishment. The Dublin Sanitary Association are, however, opposed to its abolition, and believe that a means of intercepting diseases which past experience has shown are introduced from abroad, should not for the sake of a very small outlay be discontinued. They point out, further, that the object of the hospital is not to treat cases once disease has broken out, but to anticipate outbreaks of disease by preventing their introduction on shore.

The "Hudson" prizes of the Adelaide Hospital, Dublin, have this year been awarded to Mr. Austin Nathaniel Cooper (first prize) and Dr. Bradshaw. They were founded by the late Dr. Alfred Hudson, formerly one of the physicians of the hospital, for the express object of encouraging clinical and surgical study amongst advanced students. This is the second occasion these prizes have been awarded. The gentleman who obtained the first prize was also successful in carrying off the first prize in the senior class at the College of Surgeons Medical School this year, consisting of the gold medal and £10.

Dr. James Emerson Reynolds, Professor of Chemistry in the University of Dublin, will, it is announced, continue to hold the chair for another terms of seven years.

A death under singular circumstances recently took place near Killarney. A young lad, seventeen years of age, had collected some rushes, and these, with a rope, he suspended on his back. Whilst proceeding over a wire fence six feet high, he got by some means entangled at the top of the paling, and, the rope being applied round his neck, he was unable to extricate himself, and remained suspended, with the rushes at the other side of the fence, until life was extinct.

Mr. W. Thomson's case of ligature of the innominate artery, to which allusion has already been made, still progresses fairly. The deeper sinuses seem to be closed, there is but little suppuration, and every prospect of a successful result to a most important operation.

The question of building a new general hospital for Belfast, to be constructed on the most approved plans and on a site more convenient than that of the Belfast Royal Hospital, has lately been brought before the public. It is alleged that the only general hospital in the town—the Belfast Royal Hospital, with 160 beds—is totally inadequate for a large and prosperous place like Belfast. It is urged that its sanitary arrangements are defective, that the situation is not a desirable one, and, in the interests of the community and the daily increasing importance of the Medical School, that steps should be taken without delay, more especially as the lease under which the Belfast Royal Hospital is held will terminate in a few years. A site in Glanavel-street has been suggested, and as there are two institutions already located there—the Ulster Eye, Ear, and Throat Hospital, and the Hospital for Diseases of the Skin—it is believed they might form wings of the new hospital.

PARIS.

(*From our Special Correspondent.*)

THE last bulletin of the Academy of Medicine contains an elaborate report by M. Bouley on the case of hydrophobia which has attracted so much attention lately. The author comes to the conclusion that inasmuch as M. Denis-Dumont neglected to perform any inoculation experiments on dogs with the saliva of his patient, it is impossible to pronounce any opinion as to the nature of the malady, or to look upon

the result as an authentic instance of the cure of hydrophobia. He thinks, however, that, considering the alarming character of the symptoms, the satisfactory termination of the case must be attributed to the administration of the pilocarpine; and even allowing that the patient was only affected with imaginary rabies, the observation is interesting, and worthy of publication amongst the memoirs of the Academy. At the meeting of the Academy yesterday afternoon, a letter containing some further details concerning this case was read. The writer, M. Chatel, of Valcongrain, states that Grillet (the patient) had been drinking heavily from Sunday afternoon until Monday morning, and that he was then in a state of complete intoxication. It was in this condition that he suddenly started up and rushed towards the door, exclaiming, "Je suis enragé!" "No, you are not," replied one of the persons present, "only you are drunk." Once outside the house he threw himself on the ground, biting the earth, and also his hands and arms. The bystanders promptly lassoed him, intending to secure his arms, but the noose slipped round his neck, almost strangling him. Guided by the instinct of preservation, Grillet managed to free himself from the rope, and, whilst warning those who approached that he would bite them, he requested that his arms should be tied, and threw off his belt for the purpose. Being then secured, he was taken to the Hôtel Dieu at Caen and placed under the care of M. Denis-Dumont. The sequel is known to your readers. As it now stands, the case would appear to resolve itself into one of acute alcoholic delirium. The antecedents of the patient, and the peculiar form of the delirium, easily account for the error of diagnosis, but it is to be hoped that the lesson will not be lost upon the Academy, and that it will be more chary in future of the sittings it devotes to the discussion of hypothetical communications.

An interesting case of non-hereditary sporadic cretinism was related by Professor Ball. The subject, whose bust was exhibited, is a young man aged thirty, but in appearance almost an infant. He was born in Paris, and has never been exposed to any of those influences which predispose to the disease. Three of his brothers and sisters died of convulsions.

Paris, July 5th, 1882.

ROYAL COLLEGE OF SURGEONS.

THE annual election of members of the Council took place on Thursday last. The poll was as follows:—

Mr. MARSHALL	165,	including	5	plumpers.
Mr. H. POWER	144	,,	3	,,
Mr. CROFT	103	,,	21	,,
Mr. A. Baker	72	,,	10	,,
Mr. G. Lawson	67	,,	9	,,
Mr. Macnamara	48	,,	8	,,

Mr. Marshall and Mr. Power are therefore re-elected, and Mr. John Croft replaces Mr. Baker at the Council Board. Two hundred and forty-five Fellows, out of a total of about twelve hundred, recorded their votes.

MEDICAL NOTES IN PARLIAMENT.

Petitions.

A PETITION against the Infectious Diseases Notification Bill was presented to the House of Commons from Birkenhead on the 30th ult., and one in favour of the measure was presented from Worcester on Monday. Brighton sent a petition on Monday for the exemption of medical men from carriage duty. Cambridge petitioned in favour of the Irish Bill for the Superannuation of Union Officers. On Tuesday a petition came from Forfarshire against the Lunacy Districts (Scotland) Bill.

The report for 1880 of the Army Medical Department was presented.

Mr. Herbert Gladstone gave notice that he will move for leave to introduce a Bill to dispense with the provisions of the Friendly Societies Act relating to the quinquennial returns of sickness and mortality.

Mr. Round gave notice that he will move for a return showing for each county in England the number and cost of pauper lunatics, and the expenses and debt upon county asylums.

Vaccination.

On Monday, Mr. Dillwyn, on behalf of Mr. Hopwood, asked the President of the Local Government Board whether the Board was prepared to advise the public which of the two modes of vaccination now in use was to be preferred—viz., the matter derived from arm-to-arm, or the one with the lymph from the calf recently provided by the Department; and whether it had been shown that tubercle may be transmitted by such lymph.—Mr. Dodson said the Local Government Board, after long experience of vaccination from arm-to-arm, had every confidence in its efficiency. They had not had experience on any large scale of vaccination with lymph direct from the calf, but they believed it to be equally trustworthy. In regard to the second part of the question, the Board were not prepared to offer any advice as to the preference to be given to one form of vaccination over the other.

Guy's Hospital.

Mr. John Talbot asked the President of the Local Government Board whether he had been able to ascertain the truth as to the small-pox patient who was alleged to have gone from Guy's Hospital to the Stockwell Hospital on a public conveyance; and whether, with the view of preventing the spread of disease, he would endeavour to arrange that the authorities of the various metropolitan hospitals should have ready access to the ambulances provided by the Metropolitan Asylums Board, or by the parochial authorities, for the purpose of conveying infectious persons to the hospitals appointed for their reception.—Mr. Dodson replied that he had ascertained that the person referred to came to Guy's Hospital among the crowd of out-patients who resorted there. He was found to be suffering from small-pox, and was advised to leave the out-patient room and apply for admission to a small-pox hospital through the intervention of the parish authorities, and without exposing himself unnecessarily so as to endanger others. He went to Stockwell Hospital on a public conveyance, but that appeared to have been entirely his own act, for which the medical officer at Guy's was in no sense responsible. It was evident that the governing bodies of the London hospitals had at present much difficulty in dealing with these cases when they presented themselves, as they had no accommodation for them; and he (Mr. Dodson) had now under consideration the arrangements which should be adopted for the temporary retention of patients of this class until they could be removed, and for rendering the ambulances of the managers of the Asylums District and the parochial authorities more readily available for their removal.

On Tuesday night Mr. Hicks moved the second reading of the Beer Adulteration Bill, upon which the House was counted out, and the Bill became a "dropped order."

On Wednesday, the second reading of the Criminal Lunatics Bill was further deferred for a week. The Baths and Washhouses Acts Amendment Bill was read a third time and passed. A Bill to amend the Weights and Measures Act was brought in by Major Rasch. Mr. Moore's return relating to medical officers on board emigrant ships, which was wrongly stated to have been granted last week, has been "blocked" by Viscount Folkestone.

On Thursday, Mr. Trevelyan announced that Dr. Lyons had been appointed one of the new inspectors of the Dublin convict prisons.

Sanitary Inspection of the West-end.

Mr. Heneage asked the President of the Local Government Board whether his attention had been called to the numerous cases of typhoid and other illness arising from want of proper precautions in the drainage of houses and stables in the West-end of London; and whether many well-known and experienced medical practitioners and house agents considered that the present want of proper sanitary inspection was owing to the omission of London from the Public Health Act of 1875, and that some Act for the better sanitary supervision of London was urgently required in the interests of the public health.—Mr. Dodson said he had no information respecting the prevalence of typhoid and other diseases in the West-end of London. He did not think that such a condition of things was likely to exist without the sanitary authorities reporting it. Neither these authorities nor their officers had made any

such report. The Board had no jurisdiction in the matter. He was unable to say to what extent the opinion was entertained among the well-known medical practitioners and house agents to whom the hon. member alluded, that the want of adequate sanitary inspection was due to the omission of London from the Public Health Act of 1875. At the same time, he was prepared to admit that the system of sanitary supervision in the metropolis might be placed on a better footing.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 1st, 3rd, 4th, and 5th inst.:—

Francis H. Knaggs, Thomas Rhodes, Edwin Greenough, George Wilson, and Herbert W. Pilgrim, Edinburgh; Harold B. Shaw, William H. Smart, Francis M. Haig, Thomas E. Hillier, George D. Haviland, Joseph S. Hinnell, and Herbert C. W. Jones, Cambridge; Robert J. B. Howard, M'Gill College, Toronto; Donald F. Macpherson, New York; John St. L. Clarke, Dublin; George F. A. Da Costa and George Vincent, Aberdeen; Jas. T. Simpson, Ambrose Atkinson, Albert E. A. Pearson, Henry Waite, and George Forden, Leeds; James Lazenby, William J. Ruddock, William M. Yeoman, George R. Hall, and Joseph T. Roberts, Newcastle-on-Tyne College of Medicine; Robt. H. Rains, Joseph A. Tooner, W. Arnold, Herbert L. Williams, Carl Fress, Octavius S. Fisher, Henry A. Marsden, William J. Fern, and John Aspinall, Owens College; George C. Helps and Arthur Bullied, Bristol; Walter J. Reed, Roland J. Riley, and Ernest Maberly, Birmingham; William Evans, Edward P. P. Macloghlin, Robt. C. Owen, and John E. Nevins, Liverpool; Henry D. M'Cullock, Calcutta and Glasgow; John A. Fox and George R. M'Intosh Pollard, Guy's Hospital; Wm. O. Barsham, J. Calvert, and Hugh Walsham, St. Bartholomew's Hospital; W. Mackonochie and W. R. N. Maloney, St. Mary's Hospital; E. C. Hare, A. H. Fowler, A. W. Webb, and J. D. Hughes, Guy's Hospital; F. Thomas, London Hospital; P. R. Stevens, St. George's Hospital; F. C. Kempster, Westminster Hospital; William B. Yates, J. B. Mann, and J. H. White, Owens College; Arthur G. Laidler, Newcastle-on-Tyne.

UNIVERSITY OF DUBLIN.—At a meeting of the Senate held on the 30th ult., the following degrees were conferred:—

BACHELOR IN SURGERY.—William Henry Burke, James Chute, James Seymour Carson, George Fredk. Dean, Benjamin Morgan Dockrell, William Francis Law, G. H. Lougheed, Chaworth Louis Nolan, William Fletcher Moore Patton, George Blakeley Russell, John N. Seymour, Travers Robert Montgomery Smith.

LICENTIATE IN MEDICINE.—Wm. Hamilton Allen.

BACHELOR IN MEDICINE.—Thomas Robert Bradshaw, William Henry Burke, Wm. Hallaran Bennett, Joseph Bulfin, William Alexander Carte, James Chute, Daniel Crowe, James Seymour Carson, George Frederick Dean, Benjamin Morgan Dockrell, George Lloyd-Apjohn, G. H. Lougheed, Vicars H. Fisher, Robert Howard Fleming, William Francis Law, Michael McHugh, Charles D. Moutray, Charles St. Stephen Richard Nason, Chaworth Louis Nolan, Alfred J. Rice Oxley, Henry William Peard, William Fletcher Moore Patton, George Blakeley Russell, John N. Seymour.

DOCTOR IN MEDICINE.—Thomas R. Bradshaw, Frederick Charles Berry, Abraham Cohen, William Lovel Hunter, Henry Malet, Charles Highatt Tench.

MASTER IN OBSTETRICS.—Benjamin Morgan Dockrell.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on June 29th:—

Aslett, George Stratton, Oaklands, near Carmarthen.
Beevor, Hugh Reeve, King's College Chambers, Strand.
Chadwick, Chas. Montague, Philpot-street, Commercial-road.
Edwards, George Frederick, Derby.
Fenwick, Edward Henry, Harley-street.
Fink, George Herbert, Regent's Park College.
Lynam, Robert Garner, the Quarry, Stoke-on-Trent.
Penhall, William, Furnival's-inn.
Milton, Herbert Meyrick Nelson, Richmond-terrace, Clapham.

The following gentlemen also on the same day passed the Primary Professional Examination:—

John Charles Smith, Charing-cross Hospital; Frederick Winstanley Spiller, Birmingham.

At the recent examination for the Prizes in Botany, given annually to medical students by the Society of Apothecaries, the successful candidates were—

1st.—John Barker Smith, St. Thomas's Hospital. Gold Medal.
2nd.—Charles Percival Crouch, St. Bartholomew's Hospital. Silver Medal and Books.

[The name "Percy" in the last list should have been "Perez."]

A COMMITTEE has been appointed to revise the rules of Addenbrooke's Hospital, Cambridge.

THE Duke of Cambridge will preside at the distribution of prizes at the London Hospital and Medical College on Tuesday the 18th inst.

A VERY successful dramatic matinee was held in Willis's Rooms on Tuesday last in aid of the funds of the Hospital for Children and Women, Waterloo-road.

THE Sultan of Turkey has given a site in Jerusalem for the purpose of erecting a hospice and ophthalmic dispensary under the auspices of the English branch of the Order of St. John.

THERE are forty-four cases of typhoid fever in the Brisbane Hospital at the present time (says the *Melbourne Argus* of May 22nd); five deaths have occurred within the last few days.

THE final tie for the Inter-Hospital Challenge Cup was played at Kennington Oval on Monday and Tuesday, the 3rd and 4th inst., between St. Bartholomew's and King's College, and was won by the latter.

SANITARY INSTITUTE OF GREAT BRITAIN.—At the anniversary meeting of the Institute, to be held in the theatre of the Royal Institution, Albemarle-street, on Thursday, July 13th, at 3 P.M., Edward C. Robins, F.S.A., F.R.I.B.A., will deliver an address on "The Work of the Sanitary Institute of Great Britain."

METROPOLITAN SEWAGE DISCHARGE COMMISSION. This commission met on the 30th ult., at 20, Great George-street, Westminister. There were present Lord Bramwell, F.R.S., Chairman; Sir John Coode; Professor Williamson, F.R.S.; Dr. De Chaumont, F.R.S.; Dr. Stevenson; Mr. Abernethy; and Dr. Pole, F.R.S., Secretary.

THE new infirmary which has been erected at Hope, near Eccles, for the accommodation of the sick poor of the Salford Union, will, it is expected, be opened towards the close of the present month, or early in August. Dr. Conry, the present resident medical officer at the workhouse, has been appointed as the first medical superintendent.

AT Lerwick, last week, the deaths were recorded of three very old women, at the ages of 94, 99, and 100. The centenarian was Mrs. Coutts, of Arcus, who was born in Shetland, and came to the town of Lerwick when she was only two years old. Although feeble in body of late years, her mental faculties kept wonderfully clear to the end.

ON DIT, a resident in Vevey, Switzerland, who died lately, left a will bequeathing the whole of his property, of which he was supposed to possess a large amount, to the "local hospital of the town." There being two local medical charities, the Town Hospital and the Hospice de Samaritain, the aid of the law was sought to decide between them. After considerable outlay in legal expenses, the dispute was abruptly settled by the discovery that the deceased had indulged in an unseasonable hoax, and that in fact he had not a penny to bequeath.

THE PARKES MUSEUM.—The first meeting of the Council of the Parkes Museum since its incorporation was held on June 29th, Captain Douglas Galton, F.R.S., in the chair, when the following officers were elected unanimously:—Treasurer: Professor Berkeley Hill, M.B. Honorary Solicitor: Mr. Basil Field. Secretary: Mr. Mark H. Judge, A.R.I.B.A. It was unanimously decided to remove the collection of articles at present housed in University College to premises more suited for the purposes of display and instruction, and a Building Committee was appointed to carry out this resolution.

BOYLSTON MEDICAL PRIZE QUESTIONS.—The following are the questions proposed for 1883:—1. Measles; German Measles; and their counterfeits. 2. The Differential Diagnosis of Abdominal Tumours, especially those connected with the Genito-urinary Organs. The following are the questions proposed for 1884:—1. Aseptic Agencies and Cleanliness in Wounds. To what exactly are their Good Results to be attributed? An Experimental Inquiry. 2. The alleged recent Reappearance of Intermittent Fever in New England; its History, and the Pathology of the Disease.

PRESENTATIONS.—On Wednesday, July 5th, a committee that had been formed among the friends of Dr. Langdon Down's patients at Normansfield, presented him with an admirably executed bust of himself in marble, by Mr. J. Sherwood Westmacott, to mark their great appreciation of the devoted care and skill their relatives had received at his hands. — Dr. J. P. Harper, late of Windsor, has, on his removal to London, been presented by his former neighbours with an ormolu casket containing a purse with 250 guineas, accompanied by an illuminated address on vellum. —Dr. Kirkwood of Largs has received a very handsome and flattering testimonial from his friends and neighbours on the occasion of his retirement from practice on account of infirm health. The presentation consisted of a silver tea and coffee service and a cheque for £1435.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ASHTON, C. E., M.R.C.S., has been appointed Resident Assistant at the Wolverhampton and Staffordshire General Hospital.

CURRIE, O. J., M.R.C.S., has been appointed House-Physician to Guy's Hospital.

DAY, T. M., M.R.C.S., L.R.C.P., has been appointed House-Physician to Guy's Hospital.

GRABHAM, Dr. G. W., Resident Physician and Superintendent of the Asylum for Idiots, Earlswood, has been appointed Inspector of Lunatic Asylums in New Zealand.

HEBNER, OTTO, F.I.C., F.C.S., has been appointed Lecturer on Practical Chemistry at Westminster Hospital Medical School, jointly with Dr. Dupré, F.R.S.

KNIGHTS, Mr. WEST, has been reappointed Public Analyst for the County of Cambridge.

LOGAN, J. R., M.B., C.M.Ed., has been appointed Junior House-Surgeon to the Northern Hospital, Liverpool, vice Wm. Y. Orr, promoted.

NEWNHAM, W. H. C., B.A.Cantab., M.R.C.S., has been appointed House-Surgeon to Guy's Hospital. Also House-Surgeon to the Evelina Hospital for Children.

ORR, WM. Y., M.B.Ed., M.R.C.S., has been appointed House-Physician to the Northern Hospital, Liverpool, vice W. R. Parker, M.B., resigned.

PEARSE, FRED. EDW., M.D. St. And., M.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer to the No. 1 District of the Frome Union.

PERKS, R. H., M.R.C.S., L.R.C.P., has been appointed House-Surgeon to Guy's Hospital.

PILKINGTON, H. OLDFIELD, M.R.C.S., L.S.A.Lond., has been re-appointed Medical Officer of Health for the Preston Urban Sanitary District.

POCOCK, F. ERNEST, M.D., has been appointed Surgeon to the Kensal-green District of the Gas-light and Coke Company, vice T. S. Gell, M.D., resigned.

POPE, PERCY, M.R.C.S., L.R.C.P.Ed., has been appointed Poor-law Medical Officer to the Weald District, Hendon Union, vice J. R. Pope, M.R.C.S., L.S.A.Lond., deceased.

PRICE, J. A. P., B.A., M.B.Oxon., M.R.C.S., has been appointed House-Physician to Guy's Hospital.

RYLEY, J. BERESFORD, M.D., has been appointed Consulting Physician to the Great Eastern Railway Provident Society.

SLATER, DRUCE J., L.S.A.Lond., has been appointed Resident Clinical Assistant to the East London Hospital for Children and Dispensary for Women, Shadwell, E.

STEPHENS, L. E. W., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to Guy's Hospital.

SYMONDS, CHARTERS J., M.S., F.R.C.S.E., has been appointed Surgeon to Out-patients to the Evelina Hospital for Sick Children.

SYMONS, CROFT G., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Earl Soham District of the Plomesgate Union.

THOMSON, T. P., M.R.C.S., has been appointed Assistant Medical Officer at the Workhouse of the Leeds Union, vice Richardson, resigned.

WHITE, T. BONSER, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Resident Medical Officer at the Workhouse of the Bolton Union, vice Barr, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BATEMAN.—On the 5th inst., at Whitchurch, Oxon., the wife of Francis Bateman, M.B.Lond., of a daughter.

CARVER.—On the 2nd inst., at Fairlawn, Fulham, the wife of E. J. Carver, of a son.

CONSTABLE.—On the 27th ult., at Kennington-park-road, S.E., the wife of J. J. C. Constable, M.D., of a daughter.

MORSE.—On the 23rd ult., at Prince of Wales-road, Norwich, the wife of Thomas Herbert Morse, M.R.C.S., L.R.C.P., of a daughter.

SEDGWICK.—On the 2nd inst., at Park-place, Upper Baker-street, the wife of Wm. Sedgwick, M.R.C.S., of a daughter.

SMITH.—On April 19th, at Yarra-street, Geelong, Victoria, the wife of S. Maberly Smith, of a son.

MARRIAGES.

CADELL—BOILEAU.—On the 21st ult., at St. John's Church, Notting-hill, Francis Cadell, M.B., F.R.C.S.Ed., to Mary Hamilton, younger daughter of the late Major-General A. Henry E. Boileau, Bengal Engineers.

CASKIE—MACDONALD.—On the 29th ult., at Islington Presbyterian Church, John Boyd Caskie, M.D.Glas., to Hannah, only daughter of the late Frederick Macdonald, of Devonshire-street, W.C.

COOPER—FLOWER.—On the 4th inst., at St. George's Church, Hanover-square, by the Rev. William Heath Marsh, Rector of Lammas, Norfolk (uncle of the bridegroom), Alfred Cooper, Esq., F.R.C.S., to Lady Agnes Flower, widow of the late Herbert Flower, Esq., and youngest daughter of the late Earl of Fife, K.T.

JOHNSON—BRAND.—On the 29th ult., at the Parish Church of Great Cornard, Suffolk, James Bovell Johnson, M.D., second son of the late Rev. W. A. Johnson, formerly Vicar of Weston, Ontario, Canada, to Elizabeth Olive, only daughter of the late Oliver Brand, Esq., of Great Cornard.

LANGDON—D'AUTEZ.—On the 15th ult., at the Cathedral Church of the Holy Trinity, Gibraltar, Surgeon J. S. Langdon, Army Medical Department, to Leontine, second daughter of M. G. D'Autez, of Gibraltar.

MASSEY—MORRIS.—On the 28th ult., at the Parish Church, Croydon, Hugh Tilsley Massey, L.R.C.P., elder son of Albert Massey, M.D., of Camberwell, to Eliza Jessie, younger daughter of William Henry Morris, of South Norwood.

MORTIMER—CROWE.—On the 30th ult., at Trinity Church, Claygate, Esher, John Desmond Mortimer, M.R.C.S., L.S.A.Lond., to Katie, youngest daughter of the late Alexander Crowe, Esq., of Woodcote-grove, Epsom.

DEATHS.

BALL.—On the 2nd inst., at Bruce-grove, Tottenham, Tertius Ball, M.D., Retired Surgeon-Major, Army Medical Department, in his 56th year.

BREW.—On the 29th ult., at Pontrhydyrun, near Newport, Mon., Charles Adams Brew, M.R.C.S., in his 63rd year.

KERSWILL.—On the 27th ult., at St. Germans, Cornwall, Robert Kerswill, M.R.C.S., aged 74.

KNAGGS.—On the 3rd inst., at Stratford Lodge, Folkestone, Sydney Henry Knaggs, M.R.C.S., late of New Hampton, Middlesex, in his 46th year.

LEWIS.—On the 25th ult., H. Harman D. Lewis, M.R.C.S., L.S.A.Lond., aged 54.

LING.—On the 28th ult., at Abbotsford, Torquay, Edward Clayton Ling, M.R.C.S., L.S.A.Lond., late of Darfield House, Aldeburgh, Suffolk.

NEWINGTON.—On the 3rd inst., Samuel Newington, M.A., M.R.C.P., of Ridgeway, Ticehurst, aged 68.

SEARLE.—On the 1st inst., at her residence, Donyngs Villa, Redhill, Jane Mary Searle, widow of Henry Smith Searle, F.R.C.S., formerly of Kennington, aged 76.

VALPY.—On the 4th inst., William Henry Valpy, M.D., second son of the Rev. F. E. J. Valpy, M.A., late Rector of Garveston, Norfolk, aged 53.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, July 6th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 30	30·11	E.	60	58	82	63	52	..	Overcast
July 1	30·11	E.	56	54	112	72	46	..	Bright
,, 2	30·10	W.	68	65	95	75	57	..	Hazy
,, 3	30·09	N.W	65	60	116	79	55	..	Bright
,, 4	29·85	W.	60	56	97	66	56	..	Overcast
,, 5	29·46	W.	63	58	112	68	54	..	Cloudy
,, 6	29·30	W.	60	56	..	64	52	·28	Cloudy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

RUSTY, SURGICAL INSTRUMENTS.

IN a highly sensational and unduly coloured sketch, a writer has described in *Knowledge* a case of ascites, to which some years ago he called in "the great master of British surgery, Sir Rusty Poyntz," who, on being requested to tap the patient, produced for the purpose a trocar with dull point, rusty sides, and an ill-fitting cannula, and, in spite of protest, insisted on using it, pleading, "It don't signify, you know." We cannot pretend to dispute the bare facts of the case, but we may fearlessly assert that no "master of British surgery," great or small, would to-day be found who would perpetrate such a cruelty. But yet there may be quite room even now for a word of warning as to the importance not only of absolutely clean, but of very sharp-cutting instruments. Where anæsthesia is not employed the amount of pain saved by using a knife of the greatest attainable keenness is very great, while in all cases alike, attention to this particular is one of the requisites of the successful surgeon who would obtain speedy healing of wounds. It is not an unknown thing to see two or even more incisions made before skin is divided, and the result must of necessity be a partially bruised and irregular edge, the healing of which is in exactly that measure interfered with.

M.B. should apply to Mr. Gray, Marine Secretary to the Board of Trade.

Ignotus.—We should see no objection to a circular barely intimating the facts.

"DEATH UNDER CHLOROFORM."

To the Editor of THE LANCET.

SIR,—As the junior assistant administrator of anæsthetics at St. Bartholomew's Hospital, I must take exception to the statement in your article that "the shadow of the responsibility (with regard to the death) never leaves the administrator." All I can say is that I feel no responsibility whatever. I am fully aware that the chloroform was administered with every care, and that everything was done in the endeavour to resuscitate the patient. Again I know that there are cases, though these are happily very few, which will succumb to the chloroform, no matter how administered, and if I have had to administer the chloroform to one of these, it is not my fault, for they cannot be distinguished during life.

With regard to the question of local anæsthesia, all I can say is that if I had an epithelioma of my lip, I would not have it removed without chloroform, for if you freeze the part the pain on thawing is worse than that of the operation, and the risk of hæmorrhage is greatly increased. In conclusion, let me inform you that my name is not Mr. J. S. Streatham, but yours truly, J. LIONEL STRETTON, L.R.C.P. Lond., &c.

St. Bartholomew's Hospital, E.C., July 1st, 1882.

"COMMISSIONS" IN DENTISTRY.

A CORRESPONDENT sends us a remarkable letter, written by a dentist to his, offering him a commission on patients introduced, the proportion to be 15 per cent. where the fees are below £5, 20 per cent. between £5 and £20, and 25 per cent. above £20! What shall we hear of next! We would remind the author of this proposal that the General Medical Council has power to erase the name of a person from the Dentists' Register, and that the Council has awakened to some sense of its responsibilities in regard to the behaviour of registered persons.

"RED SOCKS AND STOCKINGS."

To the Editor of THE LANCET.

SIR,—It having fallen to my lot to analyse several socks and stockings of a red colour, and being supplied with the information that they have caused great irritation to the feet and legs of the wearers, causing small pustules to arise and the skin to subsequently exfoliate, I thought it would be interesting to members of the medical profession to know that the cause of irritation is apparently the tin salt which is used as a mordant in fixing the dye. I succeeded in obtaining as much as 22·3 grains of this metal in the form of the dioxide, and as each time the articles are washed the tin salt is rendered more easily soluble, the acid excretions from the feet attack the tin oxide, thus forming an irritating fluid. I am, Sir, yours truly,

London, July 3rd, 1882. J. WOODLAND, F.C.S., F.L.S., &c.

Incredulous.—1. Certain persons, owing to an idiosyncrasy, real or fancied, are unable to eat beef without suffering from indigestion. In some rarer instances mutton produces the same effect.—2. Honey from certain districts occasionally has poisonous effects, but we are not aware of its ever giving rise to the symptoms named. Some persons are unable to eat celery; it may occasion nettle rash.—3. No, very small doses may induce salivation in individuals extremely susceptible to the influence of the drug.—4. Atrophy attended with the symptoms mentioned would point to diabetes.

A Workhouse Medical Officer.—The question is a new one to us, and entirely a legal one. Our correspondent should raise it in the form of an objection to attend an Oddfellow as a pauper.

"DISPLACEMENTS OF THE UTERUS."

To the Editor of THE LANCET.

SIR,—I have read your article in THE LANCET of Saturday last on Dr. Vedeler's contribution to the *Archiv für Gynäkologie* with some degree of amazement. Are we to believe that in only 15 per cent. of the whole female population is the uterus in its normal position?

I am, Sir, yours, &c.,

Hertford, June 29th, 1882. J. WOODHOUSE.

*** In 920 healthy nulliparous women complaining of no uterine symptoms, Vedeler found the uterus in the so-called "normal position" in 8 per cent., anteverted or anteflexed in 78·7 per cent., and retroverted or retroflexed in 13·3 per cent. The natural inference is that the term "normal position" as used at present is a misnomer, and that the uterus in health may occupy several positions, most of which are now and have been for some years regarded as displacements.—ED. L.

Italy.—We must refer our correspondent to a very good statement of the facts in "Medical Education and Practice," by Herbert James Hardwicke, M.D., published by Churchill, London.

Mr. Ambrose Tomlinson.—We are not aware that French practitioners deny the antiseptic and antifebrile properties of salicylic acid. Certainly English practitioners do not.

CORRIGENDA.

To the Editor of THE LANCET.

SIR,—Allow me to correct the following errata in my paper on the Results of Amputations, &c., in the Glasgow Royal Infirmary. Under "primary amputations" the deaths are 99, instead of 93; mortality per cent., 32·2; and at the foot of the column under the same heading the total percentage is 32·2, instead of 37·3. Your attention to this will oblige, yours truly, M. THOMAS.

Glasgow, July 1st, 1882.

Enquirens.—We know of no other means than by a charge before a magistrate of using a false title under the Medical Act—i. e., a title not warranted by the nature of the diploma.

PROVISION AGAINST SICKNESS BY MEDICAL MEN.

To the Editor of THE LANCET.

SIR,—Can any of your readers favour me with the name and address of a first-class benefit association from which, in consideration of a monthly or annual payment, a medical man would receive compensation when laid aside by sickness or disablement from accident?

I am, Sir, yours, &c.,

July 5th, 1882. PROVIDENT.

MILITIA SURGEONS.

To the Editor of THE LANCET.

SIR,—In your journal of last week, in the Parliamentary news, there appeared the following reply of Mr. Childers to a question addressed to him by Mr. O'Shaugnessy:—"In reply to my hon. and learned friend, I have to state that until 1829 militia surgeons were members of the permanent staff, and, like other officers of that staff, entitled to pensions on reduction of the force, or on retirement through age or infirmity. But no militia surgeon appointed since 1829—that is to say, during the last fifty-three years—has been entitled to a retiring allowance. Her Majesty always had the power to decide at what age militia officers should cease to serve, and in 1872 this age was fixed at sixty, although retirement was not enforced in every case. In 1881 it was decided that at sixty-five all militia surgeons must retire, this being a boon to them compared with other militia officers."

I am surprised that Mr. Childers should have fallen back upon an Act of Parliament that has no bearing on the case. If it was necessary that militia surgeons should be on the permanent staff to entitle them to pensions, how was it that ensigns, lieutenants, assistant-surgeons, or, as they were then called, surgeons, mates, and paymasters, who were never on the permanent staff, received pensions varying from 2s. 6d. to 5s. a day?

It has been shown in repeated statements addressed to Mr. Childers, and also in the public journals, that the Act of 1829 contained no such proviso, nor was it repealed at that date, as was erroneously stated by Mr. Hardy, but was in force, and continued by succeeding Acts of 10th George IV., and as lately as 31st, 32nd Vict. The words in those Acts were as follows:—"All militia surgeons who shall have served for twenty years in the militia, and who shall be retired from age or infirmities, shall be entitled to an allowance of 6s. a day." Where, then, has Mr. Childers any grounds for saying it was necessary that they should be on the permanent staff? The Act of 54 Geo. III., sec. 17, enacts that "all surgeons of militia were, after thirty years' service, or becoming unfit for duty, to be entitled to a pension of 3s. a day." This was when the pay of surgeons was only 6s. a day. If pensions were not admissible for militia surgeons, how was it as lately as 1854 Lord Panmure, then Secretary for War, issued a circular granting half-pay under certain conditions to militia surgeons? How, then, can Mr. Childers state that for the last fifty-three years militia surgeons were not entitled to pensions?

If Mr. Childers' contention be correct, and the militia surgeons are wrong in their interpretation of these Acts, why does he refuse to allow an inquiry into the case? I am aware that the opinion of three eminent counsel has been taken, and they are confident as to the correctness of the claims of the militia surgeons. I am perfectly aware that any minister if he chooses can act in an arbitrary manner and refuse to grant a hearing, but it is not equitable or in accordance with common justice, especially as any legal action cannot be taken against the Government, so that all redress is denied us, and the old saying was never more applicable than in this case, that "might overcomes right." We only ask for a committee or Royal Commission before whom our legal representative may be heard, and if we fail to prove our case, and that Mr. Childers' view and interpretation of the Acts be right, we must bow to the inevitable; or we desire that an amicable suit may be allowed to be instituted in one of the law courts, and we will rest satisfied with its decision. It is always a sign of weakness or arbitrary conduct when in private affairs one refuses to come to an amicable arrangement such as arbitration, and I do trust Mr. Childers will see the equity and justice of granting us one or other of these requests.

Mr. Childers saying it was a boon that was conferred on us by allowing militia surgeons to serve until they were sixty-five years of age is simply an absurdity, and adding insult to injury. I cannot see wherein the boon exists. Surely that cannot be called a boon which takes from a man the whole or larger portion of his income, casts him adrift at a time when he requires it most, and when he is unable to obtain any other appointment or practice.

Mr. Childers may be right when he says Her Majesty can decide when and at what age militia officers should retire, but I cannot believe Her Majesty would, if she were made acquainted with the fact, sanction turning adrift, and in some cases penniless, servants who had rendered her faithful and loyal services. The order of 1872 to which Mr. Childers refers was, as I remember, applicable only to field officers, and not a word was said about surgeons, whose appointments, under their commissions from the Lord Lieutenants, were for life, or so long as they could discharge their duties efficiently. It must be remembered that field officers, meaning thereby colonels and majors, were men of rank and position, and with ample private means, to whom the loss of twenty-seven days' training pay could have been a matter of no consideration or entailing any loss. In the case of militia surgeons—dependent in many cases on the emoluments of their appointment, the greater number of the older surgeons to whom this harsh rule applies had sacrificed their private practices to accompany their regiments when embodied, many of them serving abroad,—it certainly appears to me to be an act of the greatest cruelty to cast them adrift at sixty-five years of age without any provision whatever.

I cannot believe that any minister when he has been made acquainted with the above acts would refuse to reconsider his decision, based, as it is, on erroneous premises; and I feel confident that when the public and the House of Commons are made acquainted (as the militia surgeons mean they shall be) with the facts, as set forth in our petition, and the several documents published and distributed among the members, they will at once see the justice of recognising our claims.

I would also draw attention to the erroneous statements set forth in Mr. Bannerman's letter to the chairman of the Parliamentary Committee of the British Medical Association, wherein he states that the Act 5th Geo. IV. and all other militia Acts were only in force a year. It has been pointed out repeatedly to Mr. Childers that those Acts, though annual, were continued from year to year by the Expiring Acts Continuance Bills, and the Act of 5th Geo. IV. was only repealed in 1873, although Mr. Hardy informed a deputation that waited on him early in 1873 that this Act was repealed in 1829-30. No doubt he was erroneously informed. If I remember right, Mr. Childers (then out of office) formed one of this deputation. The other Acts under which we consider we are entitled to pension were not repealed until 1876, the year when the militia ceased virtually to be a militia, but passed under the authority of the crown, and became part and parcel of the army, when the militia surgeons accepted service under the Warrant of 1876, and joined the departmental list, they were assured that by so doing they did not forfeit any previous right or claims they possessed, one of these being the right to continue in the service for life, or so long as they could officially discharge their duties, and when retired, from age or infirmities, a right to a pension of 6s. a day. They were never informed when joining the departmental list that there was a limit of age at which they would be forced to retire, otherwise none of them would have accepted service on those conditions. In 1880 the militia regulations stated that those regiments who had medical officers attached to them would retain their services until vacancies occurred, which evidently implied that such vacancies should be the result of death or retirement from age or infirmities, as laid down by the several Acts above quoted. It was not until Jan., 1881, this arbitrary order came out compelling us to retire at sixty-five. Surely here is a clear case of breach of faith.

I am, Sir, yours, &c.,

A SURGEON MAJOR OF OVER 30 YEARS' SERVICE COMPELLED TO RETIRE WITHOUT COMPENSATION OR PENSION.

July 1st, 1882.

To the Editor of THE LANCET.

SIR,—After serving for twenty-two years as surgeon of the Royal Wiltshire Militia, with the rank (relative) of major, simply because I did not enter into the Militia Medical Department in 1876, the War Office authorities have reduced me to the relative rank of a captain. In 1859 militia surgeons, at the time line surgeons had the relative rank of field officer conferred on them, had the same rank granted them. This was done by an order of the then Secretary for War, General Peel. In my own regiment this circular has been destroyed, and I cannot find, from inquiries I have made of a few militia surgeons, that the circular is still in existence in their regimental records.

Will you allow me to ask present or late surgeons of militia if they would kindly make inquiries, and, if successful, send either to you direct or to me a certified copy of the circular of 1859 granting field officers rank to militia surgeons?—I am, Sir, yours faithfully,

Devizes, June 28th, 1882. J. J. NICHOLLS, M.D.

A Student has not enclosed his card.

Mr. Mathews.—We cannot assist our correspondent.

Dr. John Meredith.—The paper is marked for insertion.

"TREATMENT OF HÆMORRHOIDS BY CRUSHING."

To the Editor of THE LANCET.

SIR,—With reference to the remarks of M. C. Chassaignac in your issue of this date, I wish to state that the method of operating to which he refers—namely, the "écraseur of Chassaignac," differs most materially from the "treatment by crushing" with my instrument, with which, however, he seems to be unacquainted. He appears to be unmindful of the fact that the "écraseur of Chassaignac" is almost, if not entirely, obsolete, at all events in England, and is now very rarely resorted to in cases of this kind; indeed, no mention is even made of it in most of the great standard works on surgery.

Under these circumstances your correspondent's concluding remark that "all that has been attempted since to modify his (M. Chassaignac's) method has led to a deterioration, never to an improvement," cannot apply to either Mr. Pollock or myself, though it appears that "the wish is father to the thought."—I am, Sir, yours truly,

Baron's-court, July 1st, 1882. R. FITZROY BENHAM.

SYPHON BOTTLES.

To the Editor of THE LANCET.

SIR,—Have any of your readers ever noticed symptoms of lead poisoning caused by drinking freely of soda and potash-water out of the large syphon bottles? Has anyone ever tested these waters for lead, and with what result? I think this is a most important subject, and one that public attention should be called to at this season of the year, when they are so freely consumed. Also, is it not possible that these bottles may be the means of conveying scarlet fever and other infectious diseases, as we have no idea where the bottles were a few days before they were supplied to us. Cattle-trucks are disinfected, are not human beings equally entitled to protection? I should be pleased to hear the opinions of my medical brethren.

I am, Sir, yours, &c.,

June 27th, 822. M.D.

Subscriber.—We know of no regulation to prohibit the holding of the two appointments named.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Elliot, Carlisle; M. Pion, Paris; Mr. Pope, South Shields; Mr. M'Laurin, London; Dr. Sloan, Glasgow; Dr. Farnell, Madras; Dr. Atkinson; Dr. Eustace Smith, London; Dr. Cheadle, London; Mr. Fenton Jones, London; Dr. Cockle, London; Mr. Scott, London; Mr. Weatherhead, London; Mr. Wildy; Dr. Woodhouse, Hertford; Dr. Brett, Watford; Messrs. Willoughans, Klinker, and Co., London; Brigade-Surgeon Oughton, Forest-hill; Mr. Brannon; Dr. Littlejohn, Edinburgh; Mr. Rushton Parker, Liverpool; Mr. Lawson Tait, Birmingham; Mr. Reginald Harrison, Liverpool; Mr. Stretton, London; Mr. Wicks, Newcastle; Dr. Weatherly, Portishead; Mr. E. Downes, Kashmir; Mr. Stanger, Wolverhampton; Dr. Hassall, San Remo; Mr. Lyle, London; Mr. Godfrey, Northampton; Mr. Macfarlane, London; Messrs. Snapse and Co., Jonesboro', U.S.A.; Mr. Reynolds; Dr. Wall, London; Dr. Payne, Ashton-under-Lyne; Mr. F. H. Hodges, Leicester; Mr. Sutton, London; Dr. Grange, Moffat; Mr. Duke, Clapham; Mr. R. C. Clarke, London; Mr. Parry, Portishead; Dr. Collins, London; Lieut.-Col. A. S. Jones, Wrexham; Dr. Oliver, Stockton-on-Tees; Dr. Sanford, Hereford; Mr. Thomson, Dublin; Mr. Digby; Mr. Elliott, Carlisle; Mr. Milligan, Batley; Mr. Ling, Torquay; Mr. Robertson, Liverpool; Mr. H. S. Carpenter, London; Mr. Hewitt, Bayswater; Messrs. Somerville Brothers, Kendal; A. T.; M. G. E.; Medicus, Stow-on-the-Wold; M.D., London; M.D., Margate; A. W.; Provident; Enquirens; One of the Public; A Workhouse Medical Officer; Eight Years a Colonial; J. B. S.; A General Practitioner; Anti-Quackery; Stanley, Manchester; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Smith, Kingsland; Mr. Pentland, Edinburgh; Messrs. Munro and Co., Edinburgh; Mr. C. Butler, London; Dr. Neate, Margate; Mrs. Hard, Farnborough; Mr. Francis, Coventry; Mr. Bryan, London; Mr. Cooke, Ashford; Mr. Kerridge, Needham Market; Mr. Jennings, Coleford; Mr. F. A. White, London; Mr. Eberle, Essingwold; Mr. Kerswell, St. Germans; Mr. Cheese, Falhow; Messrs. Beal and Co., Brighton; Dr. B. Squire, London; Mr. De Lisle, New Zealand; Mr. Filleter, Wareham; Mr. Hower, St. Helens; Mr. Appleton, Beverley; Mr. Bolwell, Devizes; Mr. Elliott, Bodley; Mr. Young, Chilton Polden; Mr. Hodgkinson, London; Messrs. Maclachlan and Co., Edinburgh; Dr. Timothy, Manchester; Mr. Wolverson, Alfreton; Mr. Allsop, Shipley; Mr. Hart, Douglas; Miss Francillon, Gloucester; Dr. Clarke, Folkestone; Dr. Bateman, Whitchurch; Mr. Chapman, Clapham; Mr. Sartees, Chelsea; Mr. Streachan, London; Mr. Hall, Newbury; Mr. Cottom, Preston; Mr. Wheeler, Boston; Dr. Foote, Rotherham; Excelsior; S. D., Milton Ernest; Adelphos; Surgeon; Chemicus, Manchester; M.D., Plaistow; Medicus, Cannonbury; C. C., Wimbourne; Medicus, Bristol; Ajax; Kappa, North Finchley; H. S., Stourbridge; J. H. M., Northampton; C. M., Southampton; M.D.; M.R.C.S., Worle; E. B. H., St. Leonards-on-Sea; M.D., Darlington; C. L. B.; Medicus, Liverpool; W. P., Leeds; L. S. A., Halifax; A. L. P.; Surgeon, Poplar; M.R.C.S., Southwell; F.R.C.S., New Cross; Alpha, Edinburgh; L.R.C.P., Newbury; Medicus, Hampstead; G. W. W.; Verax; Cyril; M.R.C.S.; Medicus, Seaford; J. W. M.; Albany-road; Forbes, Tottenham; Medicus, Portishead; Beta; E. H. Atherstone; Cantab., London; &c., &c.

Newcastle Daily Journal, Medical Temperance Journal, Philanthropist, Melbourne Argus, Montrose Review, York Herald, Capel Court Monthly Journal, Kent Messenger, Freeman's Journal, &c., have been received.

Medical Diary for the ensuing Week.

Monday, July 10.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, July 11.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8½ P.M. General Pitt Rivers, "Note on the Egyptian Boomerang."—Right Hon. Lord Talbot de Malahide, "On the Longevity of the Romans in North Africa."—Captain R. F. Burton and Commander V. L. Cameron, "On Neolithic Stone Implements, &c., from Wásá on the Gold Coast."—Mr. M. Hutchinson, "On Exhibition of Bushman Drawings," with Note by Mr. W. L. Distant.

Wednesday, July 12.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

Thursday, July 13.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, July 14.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, July 15.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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